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NOVEMBER

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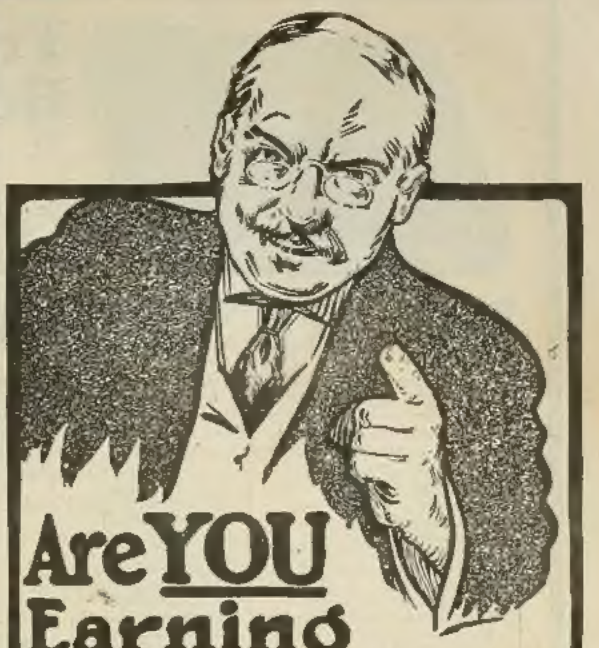

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THE RAILROAD MAN'S MAGAZINE

Vol. X. NOVEMBER, 1909. No. 2.

HARRIMAN.

BY ARTHUR B. REEVE.

AS an empire-builder Julius Cæsar was insignificant compared with Harriman, and Alexander the Great, who wept for more worlds to conquer, was a blubbering barbarian butcher in comparison with this frail American railroad emperor. The wealth that Harriman controlled, developed, or made possible of development, would have bought up most of the kings of the earth at any time since their toy kingdoms began to flutter aimlessly through history.

He was the first railroad speculator who made excellence of property the bait of success; and he blazed a trail where all who come after must be second to his unapproachable first. The name Harriman marks an epoch.

The Little Giant Who Coupled a Continent Onto His Motive Power and Steamed Unfailingly with His Load Up Every Grade of Life Until He Reached the Top.

"I WOULD go on as long as I live."

The speaker was an undersized, frail man, with a large head, and a great pair of spectacles over eyes that seemed to pierce you through and through. He was sitting before the Interstate Commerce Commission, keen and fresh after hours and days of grilling that had taxed the greatest legal experts in the country. They

HE WAS ALWAYS A BUILDER.

had just led up to a crucial question, where his policy of acquisition of railroads would stop.

There was nothing in the face of the little man to suggest the leonine greatness of James J. Hill, the almost ascetic tenacity of John D. Rockefeller, nor the cold, relentless, aristocratic power of Rogers, nor the bold, buccaneering, bull strength of J. P. Morgan. Rather, he was the picture of a shrewd country schoolmaster—a man who studied things out. His answer showed wherein the observer was wrong in thinking the man a student merely; he was essentially a man of action. They had expected an evasive answer. Quick as a flash came the quiet reply:

"I would go on as long as I live."

And he did go on as long as he lived. From office-boy in Wall Street to being the greatest railroad magnate the world ever produced; from the son of a poor country clergyman to a power in the nation greater in some respects than the President himself—that was the amazing career of Edward Henry Harriman.

Up to *within an hour of his death* he was still the railroad financier, "going on as long as he lived," dictating letters to his stenographer, literally bidding Death itself wait till he set in order his railroads—one-fourth the mileage of the United States, with a capital equal to the gross debt of the country.

Harriman never but once let slip in public his real dream. In 1907, not long after the lines under his control had been subjected to a searching investigation by the government, he took a trip over his Western roads, and in the West was reported as saying that he "would control all the railroads in the United States if he could get them."

The remark was characteristically impolitic, and was officially denied, but it was a typical expression of his ambition. Nor is there any doubt that he went farther in gratifying such an ambition than any other man. Thomas W. Lawson exclaimed, when he heard the news of Harriman's death: "The king is dead! Long live the king!"

"I would not say that I am the man who successfully could organize all the railroads of the United States and combine and operate them under one management. But that is what should be done," said Harriman.

Had he lived another five years, it might be predicted he would have added another quarter, if not more, to his railway dominion. Time only stood in the way of the unfulfilled ambition of Harriman—the man who would be railroad king.

Roughly speaking, Harriman's wonderful career falls into four epochs: Fifteen years spent as a youth; twenty years spent in learning the Wall Street game; ten years spent learning railroad operation and development; and then about fifteen years spent in adding one railroad to another in the great Harriman system.

The greater part of his railroad kingdom came to him after he had reached the age of fifty, in the little over ten years since 1898, in those years of a man's life during which Dr. Osler says he should be chloroformed! His manner in business was cold and snappy.

His Start in Life.

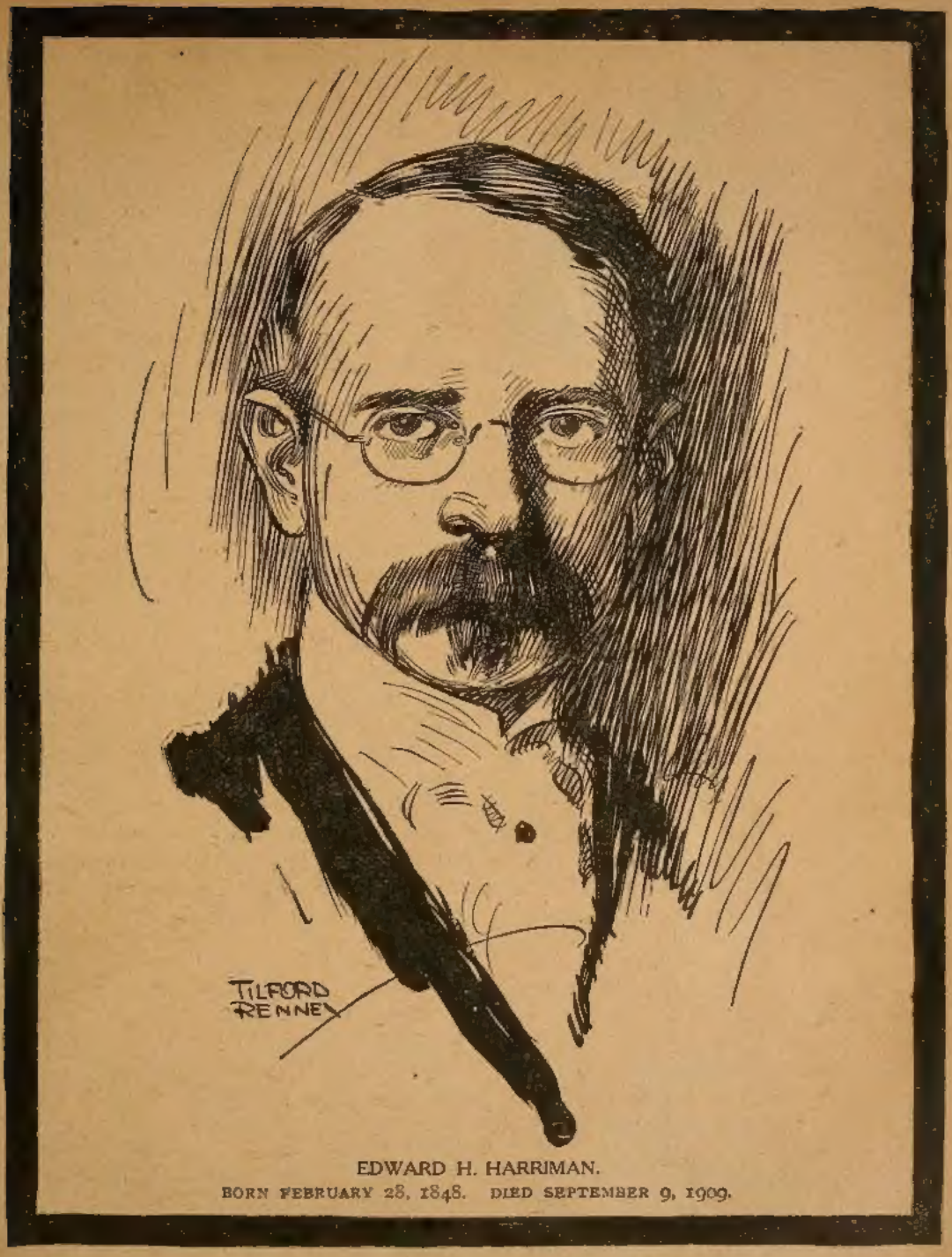
Edward H. Harriman was born on February 28, 1848, in the rectory of St. George's Episcopal Church at Hempstead, Long Island. It was a poor church then, but now it is a fashionable parish, attended by many whom Mr. Harriman has enriched.

Harriman was one of six children. At the end of fifteen years he had to go to work, although he longed to be a soldier.

His first employment was as an office-boy with a brokerage house in Wall Street. There he ran errands, and did the odd jobs which hundreds of small boys are doing in offices to-day. The office-boy took to the methods and intricacies of the Street naturally, intuitively.

It was a fortunate chance that took him to this environment. He was quick-witted, and the years of privation he had gone through gave him a rare judgment far beyond his age. Working among millions, he never forgot that a single dollar had a purchasing and investing power which in the mass made possible success.

At eighteen he was a partner in the firm; at twenty-two he bought a seat on the Exchange. Where he got the money



EDWARD H. HARRIMAN.
BORN FEBRUARY 28, 1848. DIED SEPTEMBER 9, 1909.

no one knows. Some say his wealthy uncle furnished it. Probably he had already saved it from his speculations. At any rate, old-timers on the Exchange will tell you that he was one of the stingiest traders on the floor; that he never let a dollar get away from him that he could possibly hold on to. They accuse him of being a "two-dollar man," a piker, a "shoe-string" speculator. Perhaps he was. He knew what he was doing.

He organized the firm of Harriman & Co., and went after business. He got it, too. Moreover, he got some big traders, and made large sums on commissions. But his main fortune came from

HIS EDUCATION BEGAN AT HIS MOTHER'S KNEE.

his own speculation. Time and again he risked almost all he had. But it wasn't really a risk, for as he once said, in a confiding moment, he "made speculation safe by the information at his command."

During this period he married Mary Averill, daughter of a railroad man and banker interested in the Rome, Watertown and Ogdensburg Railway, in New York. The marriage was a happy one, and, furthermore, added to his wealth, even more in the store of knowledge of railroads that he drew from his father-in-law than in money.

His Horses Beat Vanderbilt's.

Harriman was gaining influence whenever he had a chance. He had a way of ingratiating himself with the old Knickerbocker families, and he soon had many of them as customers. Even at that early day there was only one way in which you could see Harriman at play. He loved fast horses then as he did to the day of his death.

Old Commodore Vanderbilt used often to drive his teams along the old Boston Road, and the youngster who was one day to break into the old commodore's New York Central took delight in a brush with him, especially when he left the Vanderbilt team behind. But his life was soon all work and little play. Harriman has had little time for play. Perhaps he would have lived longer if he had. Certainly he would not have gone farther.

Twenty years of Harriman's life were rounded out in learning the stock market. Though he got the railroad idea as early as 1877, it was not until 1883 that he settled down in earnest to learn railroads. It was ten years later before he really got a chance to work out his knowledge of both finance and railroads.

Ten Years Learning Railroading.

Stuyvesant Fish gave him his start—the Stuyvesant Fish with whom he later waged one of his bitterest fights. Fish had met Harriman on the Exchange, but after a few years had left the floor and gone back to railroading with the Illinois Central. In 1883 he was vice-president, and in that year put Harriman into the directorate of the road. That was Harriman's first direct connection with a railroad.

Harriman did not believe in being a director who does not direct. He plunged headlong into Illinois Central affairs. He inspected every mile of the system. He went over the whole method of management. He investigated every contract. He even averaged salaries with those of other roads. There was nothing he didn't know. He even knew what the Central paid for spikes.

Thus it came about that when Fish became president, in 1887, Harriman became vice-president. Gradually he became the ruling mind of the road. Once, when Fish went abroad, Harriman cut loose and ran things to suit himself. Some of the heads of departments resigned in a rage. But it is not related that it was not a great thing for Illinois Central. The big men behind Illinois Central saw what Harriman was accomplishing, and began to appreciate it.

Harriman studied everything about railroads up to about 1893. Then he was satisfied that his railroad education was complete, and that it was time for him to get out and do things.

In his first big fight his opponent was no less a power than J. Pierpont Mor-

gan, who even at that day was doctor to every sick bank or railroad. The fight was over Erie. Curiously, one of his last fights was with Morgan over Erie. Still more curious, one of his last visitors, to whom it is said he entrusted much of the future of his lines, was Morgan.

The old New York, Lake Erie, and Western, in 1893, was sick unto death, and receivers had been appointed. Early in January of 1894, a reorganization plan was announced by J. P. Morgan & Co. Harriman, then little known, with other owners of second-mortgage bonds, opposed an assessment and formed a "protective committee." He laid his case before Morgan.

"Whom do you represent, Mr. Harriman?" asked the financier.

With that laconic manner that always characterized him, he replied directly:

"Myself."

Chance Came with Panic.

This was the key to Harriman's railroad career. He represented himself. People have said he was a Standard Oil man, that he was a Vanderbilt man, that he was some one else's man. He has been Harriman. "Myself." That's what he has always represented. Any one who got in his way found that the Harriman express runs straight ahead, switches spiked.

However, he lost his first fight. Despite protests, the reorganization was carried out. Even after a suit, it was put through. When, in 1908, the second battle over Erie with Morgan came, Harriman's position was the exact reverse. He won that fight.

At any rate, even though he lost in 1894, he had started his railroad career. He went slow at first; for, remember, it was for himself, not others, that he was building and waiting his chance.

At last the chance came. It grew out of the panic of 1893. Harriman has always grown with panics — but he has thriven with prosperity. In 1894 a quarter of all the railroads were in receivers' hands. The great Union Pacific, from Omaha to Ogden, was one of the worst — "two streaks of rust on a bank of ties," and, with all due respect to hustling Omaha and Ogden, beginning nowhere and ending nowhere.

But it had the possibilities of becoming the spine of the country. While Wall Street was resurrecting the dead bodies of railroads, Union Pacific seemed beyond hope of resurrection.

But Harriman, after studying it closely, thought differently, and, what was more to the point, succeeded in making other capitalists think with him. It is useless to enumerate who were in the syndicate that bought it. No one considered Harriman as important.

It was generally credited to be a Vanderbilt syndicate. They paid the government about $60,000,000 for the eighteen hundred miles of rust and worn out equipment, and an additional sum to bondholders and for subsidiary lines. Then they brought out a company, reorganized, with $100,000,000 bonds, $75,000,000 preferred stock, and $61,000,000 common.

The common stock, now worth double its par value, was distributed all around. The other securities were turned over to the syndicate to reimburse it, or were used to purchase minor lines.

Harriman took a trip over the road to see just how and why the spirit had

HIS FIRST EMPLOYMENT WAS AS AN OFFICE-BOY.

gone out of the men who ran it and the people along its lines. It is told that one of the old rattle-trap engines on his train loafed even longer than usual taking water, until Harriman lost patience.

"What's this delay?" he demanded of the division superintendent.

"Get Larger Engines!"

"Engine's taking water, sir."

"Why not make the feed-pipe larger?" snapped Harriman.

"The engine wouldn't stand it."

"Then we'll get some larger engines."

It was one of Harriman's boasts that he replaced eight-inch feed-pipes on the U. P. with twelve-inch, thereby saving one minute and thirty-nine seconds in the movement of a train every time the engine needed water. There was nothing he didn't attempt for economy and efficiency. Perhaps, if he had lived, he would actually have introduced his wider gage, which he had hinted at often.

Harriman did not stop with new equipment or with automatic block-signals. Engineers will tell you that one of his greatest feats was in securing the completion of the famous Lucin cut-off across the Great Salt Lake, by which ten complete circles in the 147-mile old route were eliminated, 3,919 degrees of curvature, and 1,515 feet of vertical climb.

HE LONGED TO BE A SOLDIER.

Great tunnels were built, grades reduced at hundreds of points. Only show it to be for ultimate economy, and Harriman was ready to say, "Build it," and spend money like water. For the money came back.

Once a director complained of cost. "We haven't bought a railroad here," was Harriman's reply. "We've bought an empire."

Gathering in the Roads.

It was this reasoned faith in the future which amazed Wall Street and the country. Not only was Harriman making U. P. worth something, but he was gradually gathering in other roads. The first was the Oregon Short Line, and then the Oregon Railroad and Navigation Company. It was a question whether the Oregon Short Line would have to be bought, or whether it would exchange its stock and come in peaceably.

Harriman adopted the peaceable course. His road was just beginning to boom, and, with a little coaxing, the Short Line stockholders were made to see that it would be a good exchange.

Harriman had had faith that great good times were coming after McKinley's first election. When Rockefeller was scared to death over the political outlook, Harriman reassured him; and Harriman, as the prophet, secured Standard Oil money whenever he needed it.

New ventures now came thick and fast, so thick and fast as to bewilder every one except Harriman, who planned them in that superior sphere where, as William Nelson Cromwell said, it was not permitted for others to intrude. The Alton deal came next. How he and his associates "reorganized" that road is still fresh in the public mind. Acquisition of the Kansas City Southern on somewhat similar lines came next. Then followed the coup in Southern Pacific.

Harriman was looking out for new worlds to conquer. He saw to the south Collis P. Huntington, to the north James

J. Hill. Huntington's vast work had been Central Pacific and Southern Pacific. Late in 1900, Huntington died suddenly. His estate, and those of the Crockers and Stanfords, controlled the road, Speyer & Co. being the bankers.

Harriman went quietly to work to gain control, buying right and left. The next thing Wall Street heard was on February 1, 1901, when the control of Southern Pacific had been bought by Union Pacific.

The announcement came as a thunderclap. If you want to know where Harriman was most cordially hated, go down in the financial district to the offices on whose doors is the name "Speyer & Co." Harriman had his much-desired outlet to the Pacific, and the great southern line from the California coast to the gulf, with its important steamship connection with New York.

It made Harriman the leading railroad factor in the West—allowed him to tap the region from Chicago to New Orleans down the Mississippi Valley on the east, and from Portland to Los Angeles down the Pacific coast on the west.

Here again the Harriman "Myself" method came into play. Almost directly after the purchase, one of the officers resigned; then many.

"What was the matter?" a friend asked of one.

"Well," he replied, "I didn't think the Southern Pacific should be compelled to pay $25,000 a year for an office-boy. When Harriman got through working, there wasn't anything left for me to do. I couldn't buy a ton of rails or a switch-engine without his O. K."

Quick to Punish.

Some time later, Harriman had a hard fight over Southern Pacific. James R. Keene tried to force him to pay dividends before he was ready. Keene got a terrible trouncing for that. Harriman did it by forcing T. J. Taylor & Co., Keene's son-in-law, to the wall, and taking away $6,000,000 from the Keene S. P. pool.

So Harriman was master of Union Pacific and Southern Pacific. Before Wall Street had recovered from its

HIS HORSE BEAT VANDERBILT'S.

surprise over the sudden change in Southern Pacific, Harriman was after Northern Pacific, and one of the most interesting chapters in the country's financial history had begun.

Hill and Morgan had just purchased the Burlington as an outlet for Northern Pacific and Great Northern into Chicago. Again Harriman went to Morgan. "I demand an interest in Burlington for my Union Pacific," he said. Hill shook his head, and Morgan smiled

They failed to note the threat implied in this unusual request. Before they knew what was going on, Harriman had purchased in the open market a majority of the stock of N. P. Harriman's campaign culminated in May, 1901, with N. P. shares quoted at $1,000 a share, throwing the whole stock market into one of the worst panics ever recorded. Harriman won the first round.

But there was a right of the common to call in the preferred stock, and by exercising it over night, the Hill-Morgan group, holding mostly common, stole a march on the Harriman group, holding

mostly preferred. Harriman was checkmated. The compromise agreed on was the Northern Securities Company, whereby both were to deposit their shares, and thus establish a "community of interest."

It is a matter of too recent history to need recounting how the government intervened, instituted the Northern Securities suit, disrupted the merger, and flung all into chaos again.

"THERE ARE TWO FACTORS WHICH WORK AGAINST PROSPERITY. ONE IS IDLE MEN, AND THE OTHER IS IDLE CAPITAL."

Harriman wanted his original N. P. shares back. Hill and Morgan wanted to divide both N. P. and Great Northern *pro rata*. After a long suit, the Hill-Morgan plan prevailed. But even then Harriman wasn't altogether beaten. In 1906, when the rumors were afloat of the cutting of the Hill melon in the shape of distributing profits from ore lands, and these stocks were booming, he sold the stocks at a profit of $35,000,000, and with this, in the open market, Harriman later increased his holdings in Baltimore and Ohio, and New York Central.

If he couldn't control the Northwest, then he would creep back into the East. West and Southwest were his.

Beaten by Hill and Morgan.

Harriman had a new fight on his hands every few months after that. He had been elected a trustee of the Equitable Life Assurance Company, and, as he increased his influence, he tapped another source of capital for his great enterprises, second only to Standard Oil. When Hyde and Alexander began to row, Harriman began to secure control of the company.

At the beginning of the row Harriman was Hyde's closest adviser; but, for some reason or other, after the Frick committee report, Hyde suddenly conceived the suspicion that Harriman was playing him false.

Now, Mr. Hyde was more interested in social matters than in finance. Like many another man, if he couldn't have it all, he was not averse to pulling down the whole building over the ears of every one concerned. In his almost Gallic manner, he one day accused Harriman of treachery. Harriman, bursting with rage, almost lost the power to speak. His reply was a classic in the cartoons for a time:

"Wow, wow, wow!"

Harriman resigned. Then Hyde began to dicker with Ryan. Harriman was boiling over with anger at this coup of Ryan's, arranged by the adroit hand of Root.

"Not Yet; but Soon!"

He made a threat to get even with Ryan. All this was brought out during the insurance investigation. Among other questions asked Mr. Harriman was whether he had yet made good his revenge? His answer created a new piece of classic slang:

"Not yet; but soon."

Out of the depression of 1903 1904, and the uncertainty of the exposures of financial rottenness of 1905, the Harriman system came—still on top. There was nothing that could put it down. For it was not, as so many people said, a speculative venture; speculation was reduced by knowledge to a certainty.

Then came the boom of 1906—a boom of even greater proportions than those after McKinley's first election and in 1901. The system went ahead just the same in prosperity as in panic. The culmination was the Union Pacific dividend episode, when for the first time ten per cent was declared on the common in August, 1906, along with five per cent on Southern Pacific common, as an initial dividend.

There was one phase of this episode that very vitally affected Harriman's attainment of his ambition. When he decided to raise the dividend he casually omitted to mention it to any one in advance. No one in Wall Street was "on." No one had loaded up with the stock to make a coup.

If there was to be any speculating in Union Pacific and any great money made out of it, Harriman was going to do it himself.

Just as a side diversion came the final fight with Fish about this time.

It was a long fight, involving the western coast. More than half is completed. Harriman's work in Mexico has been of so great size that he has encountered there much the same opposition as at home. His relations with the government have been such that there, too, an anti-Harriman party has grown up in opposition to Diaz.

Harriman was undoubtedly looking to the development of Mexico with much the same kind of longing as Hill looks at the Canadian northwest.

All the time Harriman was looking for eastern outlets to the Atlantic—the dream of all railroaders—"ocean to

IN WALL STREET HE WAS AN ACTIVE, ENERGETIC SPECULATOR.

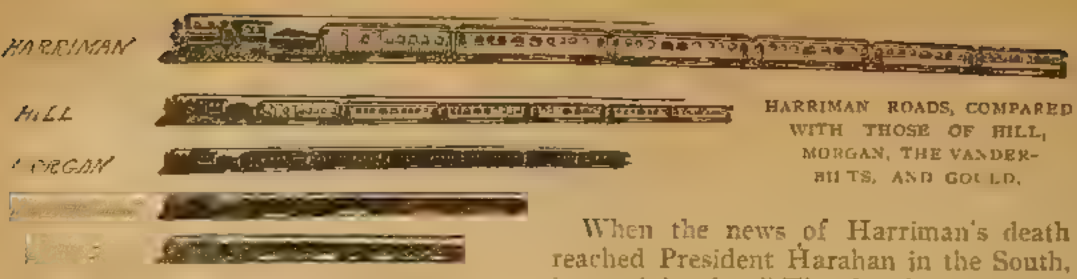
seeking of proxies in the ends of the earth. Fish was ousted from the presidency of Illinois Central for casting sheep's-eyes at Hill. His successor was a Harriman man, Mr. J. T. Harahan. That was the last of Harriman's long and spectacular fights in railroads and the markets. He made many conquests afterward, but they were mostly peaceful conquests.

"The north and south Harriman lines from Puget Sound to Guadalajara, Mexico, are almost as important as the lines east and west," said Mr. Harriman in an interview just before he died.

In Mexico the Southern Pacific plans the construction of 1,537 miles down the ocean." He had passed through many panics and escaped unhurt. His associates remarked that they guessed Harriman enjoyed panics. He must have enjoyed the one in 1907-1908. It virtually completed his ocean-to-ocean plans—not only with one line, but with three.

In April, 1908, the Erie short-term notes matured. Harriman and a number of other railroad men and bankers met at an up-town club one night to determine what should be done on the next and last day, when $5,500,000 must be paid by that road.

It was one of Erie's chronic crises. Harriman argued that Erie was worth the money needed, that the recovery from



HARRIMAN ROADS, COMPARED WITH THOSE OF HILL, MORGAN, THE VANDERBILTS, AND GOULD.

panic would be delayed unless the notes were met. All night Harriman stood alone; the others favored a receivership. They argued till morning, and still stood the same. Harriman went home, still thinking it over. Then, before the close of the business day, he sent Morgan a letter, saying he would pay the notes himself.

That action, single-handed, against the judgment of the directors, was characteristic. It saved the Erie, and it saved more than one other corporation from a receivership. It helped the return of prosperity. Above all, it clinched Harriman's ocean-to-ocean control by means of Erie.

Products of the Panic.

Besides his Baltimore and Ohio holdings, there have been mentioned the Harriman investments in New York Central, and hence also in Lake Shore, another of Harriman's ocean to-ocean connections. Just what the Union Pacific holdings are is not known exactly, but it is known that up to the very day of his death Harriman's mind was active with plans for the betterment of New York Central.

Still another product of the panic was the acquisition of the Central of Georgia by the Illinois Central. The great industrial development of the South strongly attracted Harriman; it was just the sort of thing he liked to get in under and capitalize in advance.

HIS MANNER IN BUSINESS WAS COLD AND SNAPPY.

When the news of Harriman's death reached President Harahan in the South, he exclaimed: "The South will never know what a good friend it had in Mr. Harriman."

Ocean to ocean, lakes to gulf, middle West, far West, Pacific coast, Mexico, the Orient, Northwest, Southwest, South, and to a great extent the East and New England—that was the great Harriman railroad empire when the little railroad Corsican passed away at Arden on September 9.

His Personal Side.

What manner of man was this man Harriman? First of all, he learned rapidly. Once he was secretive. But from 1905 to 1908 he was in a lot of trouble with the people through ignorance and misunderstanding. Then he did what he never did before in his life. He began to talk to newspapers.

It was as if the Sphinx spoke. He kept in touch with public sentiment through a most comprehensive and elaborate press-clipping system, operated by a competent man in the office of each general manager. All the papers of a locality were summarized as to their attitude toward the roads, and the summary was telegraphed to Mr. Julius Kruttschnitt, director of maintenance and way, in Chicago.

Everything was expressed in percentages and figures. It was an accurate gage of public opinion; and after it had been collected and unified at Chicago, Mr. Harriman read it. Nothing like it had ever been attempted.

He was doing everything to overcome his aloofness. He was not so averse to meeting strangers, and instead of stamping and swearing at reporters, he called them "My boys," and spoke of them as his friends. When he came back from Europe, dying, he insisted on seeing the reporters in his private car.

It was a different Harriman.

He made one vital remark at a dinner: "There are two factors that work against prosperity. One is idle men; the other is idle capital."

"I have never put my mind on anything yet that I haven't been able to accomplish," he replied. "My brain now is keener than it ever was; and if hard work won't affect it, how will it affect my body? I thrive on hard work."

Even when he did go in search of health he could not put business away entirely. Some time ago, when he was ordered to take an automobile trip to Europe, away from railroads and telegraphs, he consented

WHEN HE THOUGHT OF GASOLINE MOTORS FOR RAILROADS.

He had said that he was going to retire on his sixtieth birthday, in 1908. That time came, and he announced that he was too busy to think of it. But all that time, as during the previous five years, he was really fighting the greatest battle of all—against ill health.

His greatest victories were won while he carried on this losing fight. Yet he never let the truth become known to his foes or even to his friends—perhaps only to himself at the very last. Yet, for many years he was forced to wear corsets for spine trouble due to his inactive physical life.

Time and again his doctors warned him to retire. But to no purpose. They didn't even get him to keep his promise about retiring at sixty. When they argued with him, he replied that his nerve power would pull him through.

But as he convalesced he began to think of his string of machines as a railroad train. Then an idea came to him. He began to keep strict account of gasoline expenses. The drivers began to worry over his supposed economy, and trouble was averted only when he assured them that he wasn't spying on the amount of gasoline they burned up. Harriman's restless mind had conceived the idea of gasoline motors for separate coaches on small spurs of his railroads.

Always Practical.

He was investigating. When he got back he had some such coaches built, and they are to-day running on many small lines where the traffic is too light for a locomotive to pay.

Even last spring when, in alarm, he

had to take a vacation, he couldn't quite make up his mind to quit. His vacation was in a tent in Mexico, where his newest interests lay.

A telephone wire kept him in touch with business all the time. Then he decided to go to Europe. He must have felt it was a losing fight, but he neglected no chances. That was how he conducted his business fights. Might it not succeed in the fight for life?

While in Europe, fighting his last fight, he learned that a plot had been hatched to wrest from him control of his railroad empire, and no ship could take him home quickly enough. He knew what it meant.

He carried on everything as if a long life of power and health lay before him. He did everything but talk of death. He finished his new home at Arden. He completed the plans to carry on his roads after his death.

He came home to defend his empire and to die, and he died in his armor—one of the most heroic railroad figures that ever lived.

WALTER AVERILL HARRIMAN,
THE DEAD MAGNATE'S ELDEST SON, NOW LEARNING THE RAILROAD BUSINESS IN THE HOPE OF SUCCEEDING HIS FATHER.

Harriman was a small man, narrow chested, looking anything but the part of a great railroad builder. But though frail in physical strength, he was one of the most resourceful fighters of modern times. There was only one word he didn't understand, and that was "quit." Life to him was a long, unyielding fight. And yet there was another Harriman that the world did not often see.

What He Did for Boys.

Over on the East Side of New York there is a handsome building on Avenue A, opposite Tompkins Square. It is the Boys' Club. Those East Side boys saw the real Harriman. When they gave a play he was always one of them. Once, when they couldn't get a hall, he hired Sherry's for them. Often he dropped in to see how the club was getting along.

On an outing he had been known to bat out flies to the boys. He took them up to Groton once for an athletic contest with that aristocratic school where one of his sons was studying, and rooted for the East Side boys. Was that the Harriman of Union Pacific?

Harriman had a golf course laid out, and then never played over it. Yet he only spent four days a week at his busy office. His recreations were peculiarly his own. Building the great home on the highest of the Ramapo Mountains, and contemplating its broad thirty thousand acres, was one of them. His devotion to his family was another. But the Harriman of strenuous play — never. His greatest recreation was, after all, business.

One thing hurt him. He knew that the world thought he had no friends, that he made railroad men under him mere machines, and that the men hated him. Once, in a burst of self-defense, he exclaimed: "Ask the workers on my railroads if they're not all Harriman's friends. And then, if they won't testify for me, ask my neighbors. If you think there's no humanity in Harriman, go up to Arden and find out."

But the only side that really counted was the Harriman who would be railroad king, the man who would "go on as long as he lived." Whatever he was doing, he was always building.

GENERAL BURKETT'S DISCIPLE.

BY J. R. STAFFORD.

**An Ignorant Man Is a Weak One,
But Strength is Often Disguised.**

EAH. It would take all the bread an' meat ye got there, mister, to fill me up. But I jist cain't bear to eat when any one is watchin' me, so if it's jis' asame to you, I'll take the grub an' go off by myse'f to eat it." The rather foolish-faced, lanky, and ragged boy of twelve or thereabouts looked appealingly down into the hard eyes of Old Burkett.

Burkett, grizzled and unkempt—after the fashion of market hunters—squatting, huge bulked, before the fire on which a frying-pan sizzled, puckered his tufted gray brows in calculation as he looked from the lad to the big camp oven filled with new baked bread.

"Boys," he at last observed, "has no insides." Then he stared for a moment around the camp and suddenly exclaimed:

"Boy, ef ye air a tramp, w'y up an' say so. But ye needn't be one no more. I'm a needin' a boy powerful bad. 'Tain't the work so much as that I'm a gettin' old an' need a young an' handy feller to talk to of a night. W'y not jist stop 'ith me?"

Out of the rapture into which he had been thrown at sight of a gun leaning against the tent, the youth replied mechanically:

"Nope, I gotta go."

Burkett, smiling through his beard, spread the newspaper thoughtfully brought by the young vagrant, and on it dumped the ovenful; then, having poured over the bread the contents of the frying-pan, he made up a bundle, incomparably ungeometrical in shape. After a prideful survey of this he clutched it tightly and again persuaded.

"Boy, you air a passin' up a powerful good chance to make somethin' out o' yerse'f. A powerful good chance! I got a little double bar'l shotgun I'd give ye. An' I'd l'arn ye to decoy ducks an' geese an' shoot 'em on the fly. An' I'd show ye how to ketch fish in the summer an' mink an' muskrat in winter time. An' of a night we'd set by the fire an' I'd tell ye about the war an' Pickett's charge. An' by the time ye growed up, ye would be a man; 'stid o' jist a bum."

For a moment the youth's spaniel-eyes brightened on these vistas of delight, but the glow suddenly went out as, with a gulp and a look of fear, he exclaimed:

"Nope, I gotta go. I jist gotta go."

Burkett tossed him the bundle. Already moving off, he caught it and kept going as fast as his awkward legs would carry him. Underfoot, the corn-field, littered with last year's stalks, was deep with mud from the March rains, but he never stopped to rest, maintaining his ungainly trot until it had carried him the full half mile to the railroad track. There he vanished behind the tall grass fringing the right of way.

At that, the duck-hunter started in pursuit. He crossed the field in the boy's tracks and, approaching the railroad fence with noiseless step, at last put a steadying hand to a post and cocked his head to listen.

He heard the voices of men, and then crawled carefully between the wires. As he smashed his way through the screen of crackling stems and blades, three men lolling about a fire lifted their faces in lazy inquiry.

Obviously they were tramps. It was apparent also that they were now eating

a dinner at Burkett's expense, for their hands were clutching huge biscuits he had baked, and rinded bacon he had fried. Between them lay the newspaper, bare of everything but crumbs and a solitary half biscuit. Upon this remnant, the boy, who sat apart, was gazing in profound speculation.

Burkett understood. Without a word of warning he dashed at the feasters, now rising to their feet. Into their midst he shot with an ear-splitting screech. Like a bomb he seemed suddenly to explode, hurling terrific fists on every side. The assaulted went down together on the trampled grass, where they sat, gingerly feeling their bruises.

"Now," the victor commanded, "you boy; you come 'ith me. These fellers is no good. You jist stand right up now an' tell 'em they air a pack o' boy-robbin' skunks."

The lad, staring open-mouthed at the burliest of the trio, started to obey, and then trembling, stopped.

"Tell 'em whut I say," Burkett fairly boomed. "Ef they even dast to open their heads to ye, I'll give 'em a dang sight more!"

At that, in a kind of panic the youth dashed to the cover of the hunter's elbow, and from that redoubtable position not only repeated Burkett's characterization of the trio, but others of his own composition strangely picturesque and profane.

When the long-pent torrents had flowed till only the dregs of epithet remained, Burkett took him by the hand. Then the pair, having crawled back into the field, crossed it to the camp.

"Whut's yer name, boy?" the old man demanded as they entered the tent.

"Fellers called me Squib."

"Well, ye air a goin' to be more than any blank ca'tridge ef ye stay an' grow up 'ith me. I had army trainin' an' I hain't forgot it. I wuz a soldier under Pickett."

He paused, and a strange fire gleamed in his eyes as with shaking head he declared, "Boy, them days I wuz jist nacherally hell an' repeat." But his glance softened as he concluded:

"I am a goin' to name ye Bob Jones, after the hoss I rode in Pickett's charge, an' all the good an' bad water span'l dawgs I've owned sense the war."

In this manner, the waif became Bob Jones, and his fortunes linked with those of Old Burkett.

When the fact became generally known up and down the Bottoms, the good people — for everywhere there are good people — generous to think and do, especially to think for others, made up their minds the boy should have a better chance, for to them Old Burkett's conduct in every particular shouted the very antithesis of their ideals.

They dwelt in fixed abodes, he roamed along the Missouri, sheltering in a tent. They planted and plowed and reaped, sweating with toil and worry, he merely hunted and trapped and fished, leisurely and carefree. They gave full weights of grain they had produced, he often artfully sold mud-hens for teal, bullheads for catfish, and, it was affirmed, had palmed off rabbit skins for muskrat hides.

After they had paid for the necessaries of life they put the remainder of their money at interest, he invested his in whisky, or lemon extract, which went further.

On Sundays they went to town to sit soberly in the church and listen to sermons of peace, after which they cordially shook hands with even those they might have disliked. He came to parade the street drunkenly and collect a crowd of loafers, to whom he would boastingly tell of the war and Pickett's charge, in which he claimed to have actually killed one hundred of the enemy, and he would wind up then by daring any one to fight him. In short, he surpassed the ordinary type of river-rat in general worthlessness.

It was with these facts in mind that Deacon Smith got up in prayer meeting one Wednesday evening and earnestly pleaded that the brand might be plucked from the burning. A newcomer, who did not know much about Old Burkett, but who made up for this trifling lack of knowledge in a courageous zeal for good works, volunteered to go to the camp and get the boy.

At the next meeting this one limped painfully to his pew. When experiences were in order he instantly rose and, with a blackened eye fixed sternly on the deacon, vehemently repudiated the mission he had so blithely pledged himself to perform.

Again the deacon pleaded eloquently, but no one volunteered. Then, being a conscientious man, he rather grudgingly signified his intention to go himself.

So, next day, with his gun on his shoulder, for he loved to hunt, he made his way to the river. As the mallards were flying well, he first attended to the business of killing a dozen or so of them. At noon he strode up to Old Burkett's camp. The man and boy were already there eating dinner.

"Burkett," the deacon spoke with a forced civility, "that boy ought to be in school."

"You an' him fur it, deacon. Ef 'e wants to go 'e kin go."

Astounded at the ease with which he had gained his end, the good man, somewhat pridefully shouldered his gun and commanded:

"Come with me, boy. I am goin' to take ye home and make a Christian man of ye."

He was now further astounded, for the boy, to whom this golden opportunity had been offered, instead of embracing it, merely stuck out his tongue and wagged his head. Very naturally this offended the deacon, and very naturally, too, he exclaimed:

"If you don't come, I'll cut a switch an' tan your jacket."

"Umhu!" the refusing one dared, "you tetch me an' the general he'll make more'n a Christian man o' you. He'll make ye outrun yer dog a gittin' acrost that field."

"EF THEY EVEN DAST TO OPEN THEIR HEADS TO YE, I'LL GIVE 'EM A DANG SIGHT MORE!"

At this, though roaring with laughter, Old Burkett began to roll up his sleeves.

"You have already corrupted him, mebbe beyond redemption," the deacon declared white-lipped—for he expected a beating—"but I shall go to the law. He sha'n't be your disciple no longer."

"All right, deacon," Burkett boomed with unexpected good humor, "I jist wisht ye would hoss us into the court."

Wherefore a couple of days afterward the sheriff came to the camp and took the

pair to the county seat, where county court was in session.

Now, the county judges were farmers, and they did not wish to put any new burden on the taxpayers. Moreover, Deacon Smith had worked against the election of two of them. Besides, there were some sixteen voters present in the room at that moment fiercely demanding an appropriation of thirty-seven dollars and thirty-five cents for a bridge over Squaw Creek.

They of course felt a vague interest in the boy. They listened impatiently to the deacon and then, the presiding judge having asked Bob if he wished to leave Burkett and go to the deacon, and having received a surprisingly emphatic negative, they dismissed the whole matter and turned their attention to real business.

Forthwith, Burkett led the boy into the Probate Court and, by means of much red tape, painstakingly unrolled, adopted him.

Then the pair marched proudly down the corridor and, coming out, found the deacon sitting dejectedly on the steps. At sight of him the boy paused abruptly. His sallow face flamed red, his brown eyes glowed like two coals from which a breath had swept the ash; and, jumping up and down in a kind of paroxysm, he screamed:

"HE'LL MAKE YE OUTRUN YER DOG A GITTIN' ACROST THAT FIELD."

"When I git big I'll kill ye. I'll kill ye!"

"Hush, Bob Jones!" Old Burkett chided fiercely, "ye dassent to kill 'cepin' in war. Tell 'im ye'll pound the soup out of 'im."

"Then I'll pound the soup out o' ye. I'll pound the soup out o' ye!" The lad's voice echoed with unabated wrath.

At that the duck-hunter caught him up, and then, with a mighty swagger, quitted the courtyard.

That was the last effort made with a view of separating them. Under Old Burkett's tutelage, the lad grew to be an ungainly but very strong man, profoundly igorant, and, of course, supremely disdainful of all things outside of his own little world.

In that narrow circle, however, he was really a genius. He shot, with a precision marvelous even among men brought up from childhood to the gun;

and as a fisherman, trapper, or boatman he was equally proficient. His attitude toward Old Burkett was also worth comment.

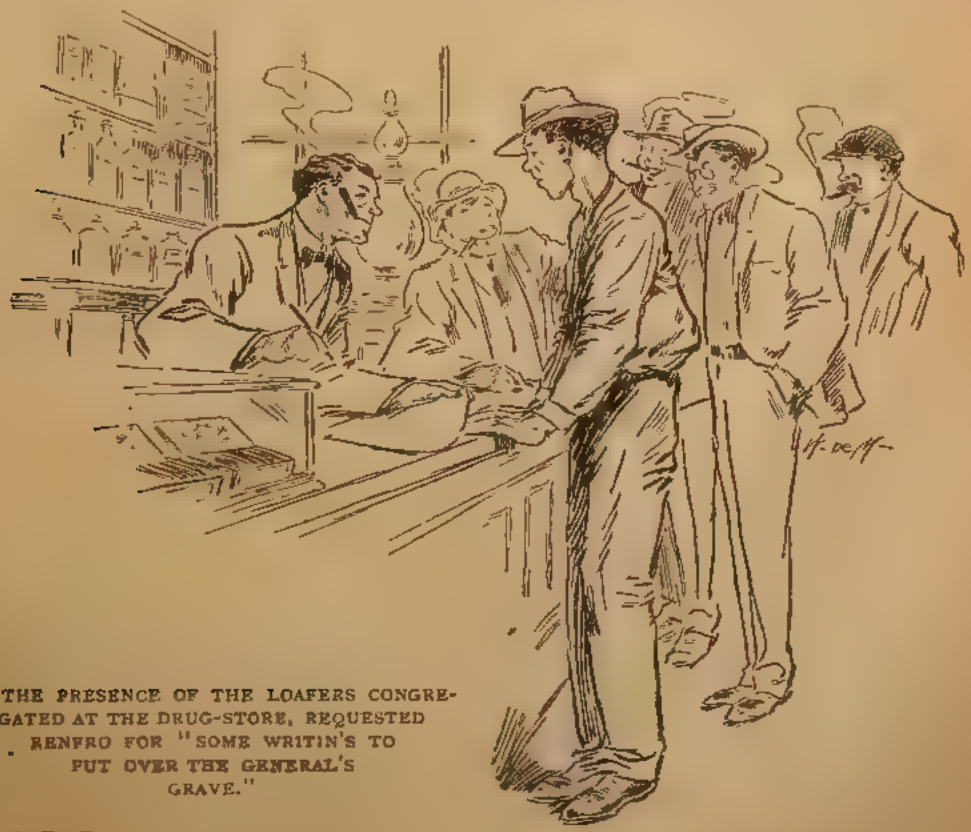
His readiness to obey that worthy was a constant reminder of that other famous Bob Jones of Pickett's charge, while the devotion that shone always from his brown eyes recalled the faithfulness of all those spaniels, which since the war had borne the name. In fact, save for two rather trivial personal interests—his hatred of Deacon Smith and an astonishing delight in his own silky and inconsequent whiskers, his whole thought and effort were for his guardian.

It would seem that all this devotion might have had an ennobling influence on its recipient, but it is a lamentable fact that Old Burkett never changed his ways one whit. Through all the years he scoffed at industry, other than his own; told wilder tales than ever of his prowess in the war; grew more quarrelsome with the world in general, and, since Bob's efforts brought more money, drank even more prodigiously.

Thus it happened that one sleeting day in March, the old man having gone to town for shot shells, returned to the camp with his pockets filled with bottles from Jack Renfro's drug-store instead, and going out to his shooting-pit in the afternoon did not return.

When Bob came in from running a line of mink traps that night, he went out there and found him, stiff and cold in death. He carried the body back to the tent and sat with it until day. Then, leaving the dog to watch, he ran all the way in to town. Quite out of breath, he entered the furniture-store and asked for a coffin, which he naively promised to pay for as soon as the shooting opened.

The dealer was a tight fisted and unimaginative man. He scoffed at the idea of a sale on terms requiring him to wait for his money until wild geese and ducks, at that moment roaming over Florida or headed for Nova Scotia, for all he knew, should fly a thousand miles or more to Eiselman Bar with no other purpose in their fool heads than to get shot. Moreover, he was a brother-in law to Deacon



IN THE PRESENCE OF THE LOAFERS CONGREGATED AT THE DRUG-STORE, REQUESTED RENFRO FOR "SOME WRITIN'S TO PUT OVER THE GENERAL'S GRAVE."

Smith. He dismissed the would-be customer and his proposal as preposterous.

Dismayed beyond description, Bob rushed down to Jack Renfro's drug-store and poured out his troubles there. Then Jack, though he was a flashy young fellow of rather doubtful morals—his drug-store was really a dive—straightway hastened to the furniture-store, and with his own money somewhat ostentatiously paid for a casket.

The gratitude of Old Burkett's protégée at this was pitiful. His further efforts to gather a crowd for funeral honors on behalf of his dead were, however, altogether fruitless. So he got the long box on his back and plodded alone across the fields to the camp.

Next morning he moved the tent. Where it had stood beneath the great sycamore, in a spot commanding a wide sweep of the river and the shooting grounds of Eiselman Bar, in the spot dearest of earth to Old Burkett, he dug the grave. There, with only the solemn spaniel looking on, he heaped the mound with loving care.

That afternoon he went back to town, and in the presence of the loafers congregated at the drug-store requested Renfro for "some writin's to put over the general's grave."

The crowd, of course, laughed, but Renfro, who was one of the best fellows on earth—extrinsically—inquired with a rare deference what it was that the epitaph should convey.

"I want it to say the facks. The general, he wuz a soldier, an' as brave as they ever wuz. He didn't fear nothin', nothin'." A titter ran round at this, whereupon Bob straightened his stooping shoulders and with a look of mild reproof on his rather vacuous face he concluded: "An' he wuz a mighty good man, fur he took me from tramps an' made me whut I am."

A shout greeted this, but Renfro, with a solemn wink at this and that chosen habitué of the place, tore a piece of wrapper from the roof at his elbow and then, getting out his pencil, bowed over the counter and wrote the following:

"General Burkett, age, place of birth and cause of death unknown. Claimed to have killed one hundred men in Pickett's charge. This is likely, for ever since the war, wherever he has gone he has always left behind him a string of dead soldiers. His good works live after him. Witness Bob Jones, his mark."

He made Bob subscribe to it with a cross, after which he showed it to the crowd. Then amid the bedlam that went up, he got a big flask from behind the prescription case and proffered it to the guileless one.

"Ef it's booze," Bob declared slowly, "I don't want it. The general, he privately told me often, when he wuz sober, that ef it hadn't 'a' ben fur booze he might 'a' ben knowed fur a great man by more people than jist me an' hissef."

"All right, Bob," the druggist returned with unruffled suavity, for he was making sport to please the crowd. "I suppose now that the general is dead you'll quit the old river?"

"Nope. Jist keep on asame old way. When a feller has been brought up to a good business as I have he ort to stay with it. The general he allus 'lowed that he would have been a heap better off ef he had stayed with the army after the war. Ef he had, though, I never would 'a' run acrost 'im. It might 'a' ben better fur him, but it would a ben almighty tough on me."

At this even Renfro gave way to his long-pent laughter. Then, since he was beginning to feel some qualms, though they were, it must be admitted, vague ones, he passed over the paper.

Bob took it, and putting it carefully in the pocket of his flannel shirt, ambled out where the March sunshine soon drove all doubt from his simple mind.

Two or three days after that, when the wind had swung round to the east where great cloud-drifts lay, threatening storm, Deacon Smith, venerable now and softened by the years, but with his old-time ardor for shooting unabated, came down to the river for the sport that a rain would surely bring. His youngest son, a man of thirty, was with him.

As the two were passing the sycamore they noted that the tent was gone. Wherefore, in that curiosity that all men display in the presence of deserted home sites, they went to it and found old Burkett's grave, and above it Renfro's epitaph, tacked neatly on the shining bark.

Now the deacon did not comprehend that clause—"has always left behind him a string of dead soldiers," but the son did, and explained that it referred to Old Burkett's trail of empty bottles.

On a sudden then the old man saw in the ignorance that had suffered such a cruel joke a long hoped-for opportunity to rescue the half-savage Bob. Moreover, his heart was strangely touched at the symbolism of Burkett's grave.

But by dint of much sober argument he was at last convinced of the trick that had been played upon the memory of his friend.

"All right," he admitted sadly, "I knowed they wuz somethin' wrong at the time, by the way they laughed. They hain't no one that's all good like the general wuz. I wisht I wuz with 'im."

"Oh, no," the deacon gently remonstrated from the depths of a sudden ab-

THEN HE SAT BOLT UPRIGHT, AND, WITH THE MATCHLESS STRENGTH OF HIS ARMS ALONE, ROWED IN A CUNNING FRENZY.

He forgot all about the shooting, and peering round soon discovered the new location of the tent. The two approached it and found its owner at home. He, of course, greeted them with his old-time curses.

"Who writ that epytaft?" the deacon demanded.

After a long silence Bob declared that, though it was nobody's business, Mr. Jack Renfro had been kind enough and fair enough to give the general his due.

straction, "you want to go to a better place than that."

Then after a silence he roused brightly and pursued, "You jist come on out on the bar with Jack an' me an' shoot awhile an' forgit your troubles. When we git back we'll write somethin' suitable fur Burkett."

"Couldn't ye do it now?"

"We better be a gittin' to the point," the deacon replied, as glancing out along the spit he saw geese and ducks already

swarming in above it, "the shootin' is a goin' to be somethin' wonderful. We kin write that at any time. Git yer gun an' come."

"Nope, I guess not. I'd rather set an' think."

Moralizing, the pair hurried to the river bank, down it, and thence over the wide stretches of dead water.

Out on the very point of the bar the old man and the son dug their pits hastily, put out their decoys between the pits and the edge of the sands where the black waters of the main channel crinkled and sucked by, and then, with their faces set toward the shore across, they waited the return of the flock.

Presently rain began to fall, and the wind, that had been fresh and strong, now rose until it boomed mightily over the great valley. At that, the birds, blinded and beaten, hurtled in never-ending swarms overhead and swept down confusedly for the shelter of the spit. The deacon and his son stood up loading and firing with all their speed and skill; and in the mad excitement of the sport forgot all else.

It was just about noon that the clouds suddenly parted, the wind fell and the sun came out brightly and the birds all flew away. The hunters stared across the river, noted the wondrous lustre with which the farther shore shone, and then discovered that the waters had risen.

With a profound sigh, for this meant an end of the sport, the old man turned his head to look back over the way, very humanly anticipating his regret at departure, and was attempting to solace himself with a bit of philosophy concerning the brightness that comes after a storm, when on a sudden he gave vent to an exclamation strangely vehement for a deacon.

The bar, or rather a great portion of it lying between them and the shore, had disappeared. Where before for many years it had risen, now, a black tossing of waters swept, and at every moment grew wider. The Missouri had changed its course.

The two scrambled from their pits, and huddling together gazed with starting eyes as whole acres of the sands slipped down and sank away.

Presently from the bank, down which they had scrambled in the morning, a skiff shot out. It came with speed toward them, but the cutting waters also came. The man in it bent himself far forward at each stroke, and then with braced feet hurled his whole weight upon the tether of his arms, and the oars with never a splash went up and down like the wings of a flying bird. Like a bird the boat skimmed on, but engulfment approached even swifter.

Then he sat bolt upright and, with the matchless strength of his arms alone, rowed in a cunning frenzy till the oars showed as but a rolling sheen, and the hull lifted until it seemed fairly to fly. Whereat the two who watched whirled up their caps and cheered mightily, for he was gaining now. Then, when the point on which they stood had fallen away to a space no wider than an oar length, he swung the boat alongside.

With a choke in his throat the deacon quavered, "Bob Jones, God Almighty is behind a man that kin row that way, but the boat won't hold us all."

For answer the boatman tumbled weakly out, and, gripping the painter tightly with both hands, cried in a commanding fury, "Git in. Git in." Wondering what further marvel of his craft he would display, whereby three men might ride to safety in a boat designed to bear but one, they blindly obeyed him.

Then he said, "I couldn't a got to ye with the big skift. But this'n will float ye till ye hit some bank." He flung the rope into the narrow prow and with a sturdy kick on the gunwale shoved off.

They caught the oars and wielded with all their strength to win back to him, but in the heart of the main channel of the Missouri, at flood-time the currents are mighty. When at last they faced the bow about, a score of boat lengths separated them from the dwindling circle at his feet.

From it he hailed simply, "They is no use, men. Three would sink the skift an' no man could live in this water even with a hang holt at the ster. Let 'er drift fur fear o' ice cakes floatin' down."

Then the last of the sands slowly settled and the dark and swift flood swept them remorselessly from view, but around him it seemed to rise gently, and gently it bore him down.

Great American Train Robberies.

BY JOHN P. DUXTER.

WE are able to add No 15 to our series of Great American Train Robberies. It is a startling, gripping story. Strange as it may seem, it didn't happen in the Far West, where the doughty deeds of modern Dick Turpins have added so much to history. It occurred in Pennsylvania — the Keystone State of this gentle-mannered, effete East.

The spot selected was ideal. The night was dark and rainy. The scheme was well planned. The robber was a cool, calculating desperado. Nothing in the history of train-robbery reads more graphically.

No. 15.—THE LONE BANDIT OF THE "PENNSY."

He Just Missed Getting Away with Over $500,000, but the Total Amount of His Haul Was Exactly $65 in Lincoln Pennies.

SHADES of the lone hand bandits, Perry and Wetreck! A Wild West train hold up in the teeming heart of Pennsylvania, single-handed, and with a successful getaway! That, too, in this year of civilization, 1909.

Most amazing, in many ways, of all the fourteen "Great American Train Robberies" told in THE RAILROAD MAN'S MAGAZINE, is this, the fifteenth and final story in the series. Here, almost under our very eyes, is pulled off one of the last, if not the last, of the big deeds of daring of the road-agents of the rail. For, meanwhile, the gentle art of train robbery is passing into decline and fall, and the figures of Jesse James, Hedgepeth, Evans, Sontag, Morgan, Searcey, the Younger gang, the "Wild Bunch," are receding into history.

Only the most colossal nerve, aided by equally unusual luck, made possible this latest exploit. It is significant that, even after all the deviltry that marked the palmy days of the old timers had been resurrected, this robber, in the heart of civilization, got away finally with exactly sixty-five dollars in nice new Lincoln cents!

Never, on the lonely plains of the Far West, was a train held up and looted in a bolder or more sensational manner than was the Pittsburgh and Northern Express on the Pennsylvania Railroad, early in the morning of August 31. Never was a lone and audacious robber more woefully sold than the man who pulled off this job — he actually missed getting over half a million dollars.

Lewistown Narrows, where the deed was done, is ideally located for just such

a purpose. Threading its serpentine course in and out among the mountains of Pennsylvania, the Juniata River is closely paralleled by the Pennsylvania Railroad.

It is one of the most wildly beautiful spots in the Alleghenies. For miles on this side of the river not a house is to be found, though the Narrows is only fifty three miles from Harrisburg, the State capital. On one side is the river; on the other are the mountains, rising abruptly and forming a deep, narrow gorge.

Old residents of the section on either side of the Narrows recall that the point at which the express was held up was the scene of numerous highway robberies in the days when David Lewis and his band operated in the mountains around Lewistown and Bellefonte. The old State pike from Philadelphia to Pittsburgh passed through the Lewistown Narrows, where the tracks of the Pennsylvania Railroad now run, and Lewis and his highwaymen frequently held up stage-coaches bound east or west.

They continued to operate from 1814 to 1820, when Lewis and his chief lieutenant, Connolly, were captured and shot by a posse, and the gang dispersed. Since then, for nearly ninety years, no highwayman had dared operate there. That's how daring was this modern hold-up.

Had the highwayman been the most artistic of theatrical managers, instead of a vagabond but pretty well educated foreigner, as he seems to have been, he could not more excellently have staged and carried out his plot.

A Criminal's Paradise.

The Narrows is a rift between the mountains, some ten miles in length and not much over an eighth of a mile in width, with piles upon piles of loose, jagged rocks covered with underbrush and known under the name of "Black Log Mountain."

Beside the Juniata River an artificial bed has been formed for the railroad tracks to rest upon. At many points there is a sheer descent of thirty or forty feet straight into the river-bed. There is only room for the towpath of the Pennsylvania Canal and the old State road between this and the abrupt ascent of "Jack's Mountain," one of the highest and most rugged in that section of the State.

The lofty mountains, more even than the tangled scrub timber, cast deep heavy shadows over the tracks at this point until, in the daytime, except when the sun is overhead, they are of almost Stygian darkness. There is absolutely no life in the vicinity after sunset, except the seminightly trips of the track-walker.

Once a criminal gets into the mountain fastness, he can travel far into the Virginias before coming to cleared land.

Carried Over $500,000.

Train No. 39 has the reputation, among railroad men who know, of being a treasure-train. Nightly it carries from $50,000 to $200,000. Other trains carry more money and valuables than this; but, after all, No. 39 is a pretty regular carrier of large sums. At this particular time it was a richer haul than ordinarily.

The Pittsburgh and Northern Express, as it is known to the public, leaves Philadelphia shortly after 9 P.M., and Harrisburg at 12.01. On the night of August 31, it was composed of five Pullman sleepers filled with passengers and three express cars, two of which had come up from Washington in the afternoon and had been transferred to the train at Philadelphia, while the other was from that city itself.

In one of the Washington express-cars were five big steel safes, crammed full of new bank-notes in the denominations mostly of one's, two's, and five's —perhaps something over half a million dollars.

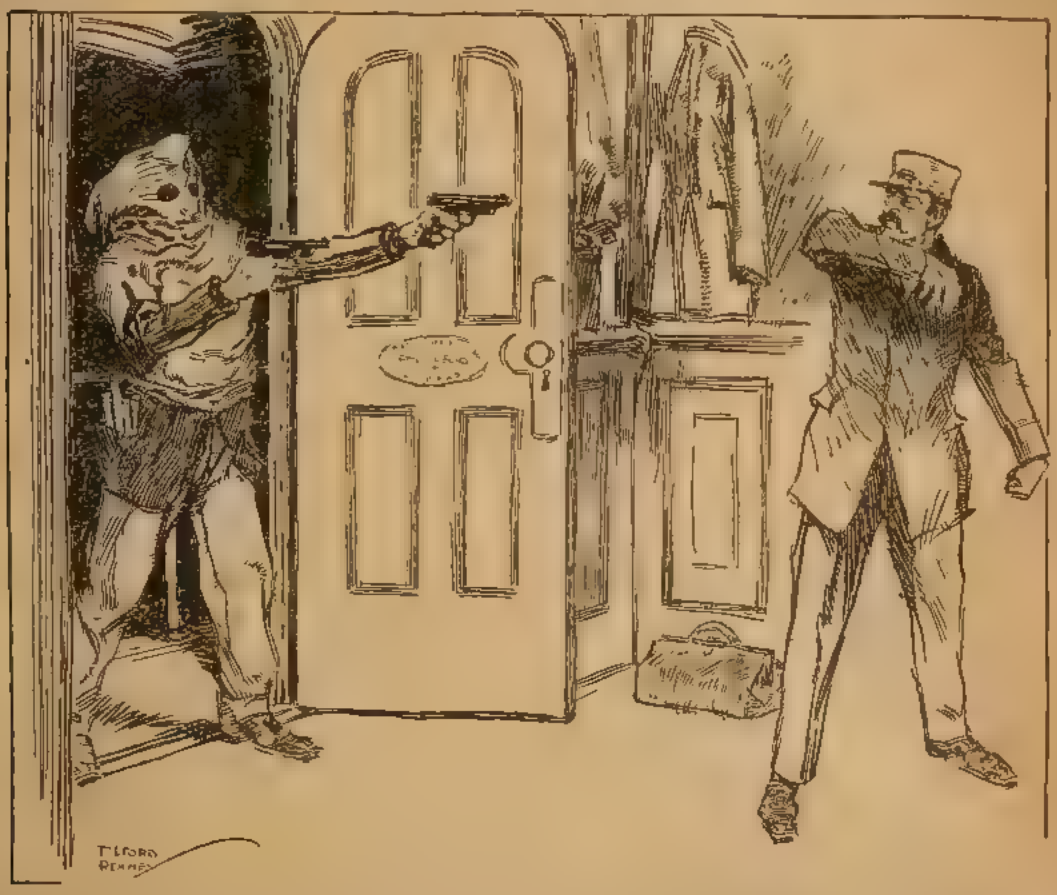
In the Philadelphia express-car were shipments of money and bullion to banks farther west, as well as checks and valuable papers to an unknown amount. No one, except the Treasury officials in Washington and St. Louis, knew the combination of the five big safes, but the express messenger in the other car knew that of the smaller safe, in which the smaller amounts of bullion and coin were placed.

At this particular season of the year, when the East was hurrying "crop money" to the West to facilitate the handling of the harvests, the train was likely to be a particularly rich haul. Moreover, it was the thirty-first of the month, and usually there was, also, on this day over $300,000 in the pay-envelopes of the Cambria Steel Company of Johnstown for September 1.

cars. All this the robber must presumably have known when he determined, on this dark and overcast night, to hold up No. 39.

Donnelly Hears the Torpedo.

It was about 1.30 A.M., and the train was running along smoothly at about fifty miles an hour, when suddenly En-



THERE WAS NO ANSWER JUST THE TWO ELOQUENT OPEN MOUTHS OF THE AUTOMATICS

It so happened, however, that on this night the pay-roll had been delayed to a later train. But the robber must have known a lot about the inside, as the gang did in the famous Mineral Range hold-up. Some years before, on this train it had always been the practise to have a guard with a loaded repeating rifle in the coach behind the express-cars.

It was his duty to get out and patrol the treasure-car whenever a stop was made. But this had been discontinued, and the messengers and baggagemen now relied on the carbines in their own

gineer Samuel Donnelly heard what sounded like a torpedo under his engine.

He pulled back the throttle and, following the rules, after slowing down, proceeded under control. Then came another explosion more violent than the first, and a whole series of them, shattering the head-light and breaking the windows of the cab.

He turned on the emergency-brakes, and the wheels were clamped tightly while the train came to an abrupt stop.

Donnelly peered out into the darkness ahead, fully expecting to see a wreck.

Instead, a gruff voice from behind him rang out sharply:

"Get down out of there! Quick!"

Donnelly turned hastily, only to find himself facing the cold, blue, yawning mouths of two automatic revolvers. If they were pointed at you, you would tremble if even a fly walked over the trigger—the kind that will send half a dozen bullets into you in as many seconds.

Behind the automatics was a grotesque figure. It was apparently that of a short, stockily built but very muscular man. From beneath his black slouch-hat a gunny sack hung down, covering his face and even most of his body.

Slits were cut in it through which his piercing black eyes snapped sharply. Even the burlap did not tone down the rapid fire of profanity which blazed from his mouth.

Donnelly hustled down to the ground as the robber also leaped off the steps of the locomotive.

Just then the fireman, Freeman G. D. Willis, came around the engine. He had stepped out at the first sign of trouble to see if anything was wrong with the engine. He hadn't time to report that the headlight had been smashed.

"Hands up! Be quick about it!" yelled the highwayman, firing a few shots just for the moral effect. "If either of you say a word before I tell you, I'll kill you both!"

Then followed a brief parley.

"Any mail-cars?"

"No."

"Any express cars?"

"Yes."

"Any money?"

"No."

"You lie! Lead me back to them! And be careful!"

Fortunately, the car containing the safes with the half million dollars was the second in the train. The first car contained the single safe with the smaller amount. The engineer was forced to beat on the door. John W.

EVERYTHING THAT LOOKED LIKE MONEY WENT INTO THE BAG.

THE ROBBER HAD CHOSEN THE PENNIES.

S. Harper, the express messenger, opened it.

"What's the matter up the line?" he drawled, not for a moment dreaming of such a thing as train-robbery in Pennsylvania.

There was no answer—just the two eloquent open mouths of the automatics. Harper started back to the carbines in the corner, then stopped as if frozen.

"If you move again before I tell you to, I'll blow you up! Up with your hands!" yelled the robber. "See those dynamite cartridges in my pocket, too, eh?"

Lined Up the Crew.

No one cared to trifle with the walking arsenal of death after that. With the utmost alacrity the engineer and fireman jumped up, under orders, into the car, while the robber followed, and lined up all three in the corner farthest from the carbines.

Just then the messenger from one of the other cars, T. M. Clayton, stuck his head in the door to find out what was up. He didn't even have time to ask his question, but was expeditiously lined up by the side of the other three.

The road-agent hadn't really got down to business before up came I. R. Poffenberger, the conductor of the train, swinging his lantern and calling out to know why the train was stopped.

"Throw up your hands and get back there!" answered the bandit, adding an argument from one of his revolvers while he kept the other slowly swinging back and forth on a level with the fifth ribs of the four men lined up in the car before him.

The first shot went through Poffenberger's hand, and, as he ducked and ran, a veritable broadside followed him. By a miracle, the shots went through his coat-tails, and not through him. But so far as the men in the car knew, he was dead as a door nail.

At any rate, the highwayman had shown his quality—he was ready to fire at a hostile eye-wink. Then he proceeded to take advantage of the few minutes he had in which to do his real work.

Under his directions, while the fireman held open a sack, Harper was

forced to open the safe and take out the contents. As the highwayman inspected each bag, he determined whether to take it or not, ordering Harper to place it in the bag which Willis held.

Some bags of bullion went in. Then some bags of currency, and some packages of papers that looked as if they might be bank-notes. Bundles presumably of jewelry were discarded as too bulky, but everything that looked like money went into the capacious maw of the bag that Willis held.

"Right heah is whar' he broke his merlasses jug," as Uncle Remus put it.

While no one knew the combinations of the five safes of the other car, the bandit might have dynamited them and got a chance at half a million. In the car he entered, he mistook the heavy bags of uncoined bullion for coin. The bags of what seemed to be gold coin were really nothing but Lincoln pennies.

As for the packages that seemed to be treasury-notes, they contained nothing but checks and commercial paper. The whole thing made a heavy bundle, more than he could quickly and conveniently carry in his hurry to get away and start the train off again.

In fact, the pennies themselves—some eleven thousand of them—weighed over seventy pounds; and, after you drop the two decimals off, they weren't much of a haul, at that.

Up the Mountainside.

"Pick up that bag!" he ordered Willis, when it was evident that the safe had been thoroughly looted and that the time was growing short.

"Now carry it up this path!" he added.

Then, as the fireman preceded him up the mountainside, he turned to the engineer.

"Now, you go back to the engine, and don't you stop till you get to the next station!"

After a few minutes' climb, Fireman Willis was told to drop his burden in a thicket.

"Good night and good luck," said the bravado. "Get back to your train, if you can. I hope to see you again!"

Willis was only too glad to return on a run, and more than glad to just scramble aboard the train. Donnelly had been much too cautious to run his train out blindly, but had reconnoitered the track for several yards ahead, finding near the rails a quantity of dynamite large enough to blow up the train, provided he had not stopped just when he did after the second explosion.

Indeed, the bandit had intimated that if anything went wrong he wouldn't hesitate to blow up the train. Not five days later, in another part of the State, yeggmen dynamited a train on another road for the purpose of concealing a robbery.

The Passengers Sleep.

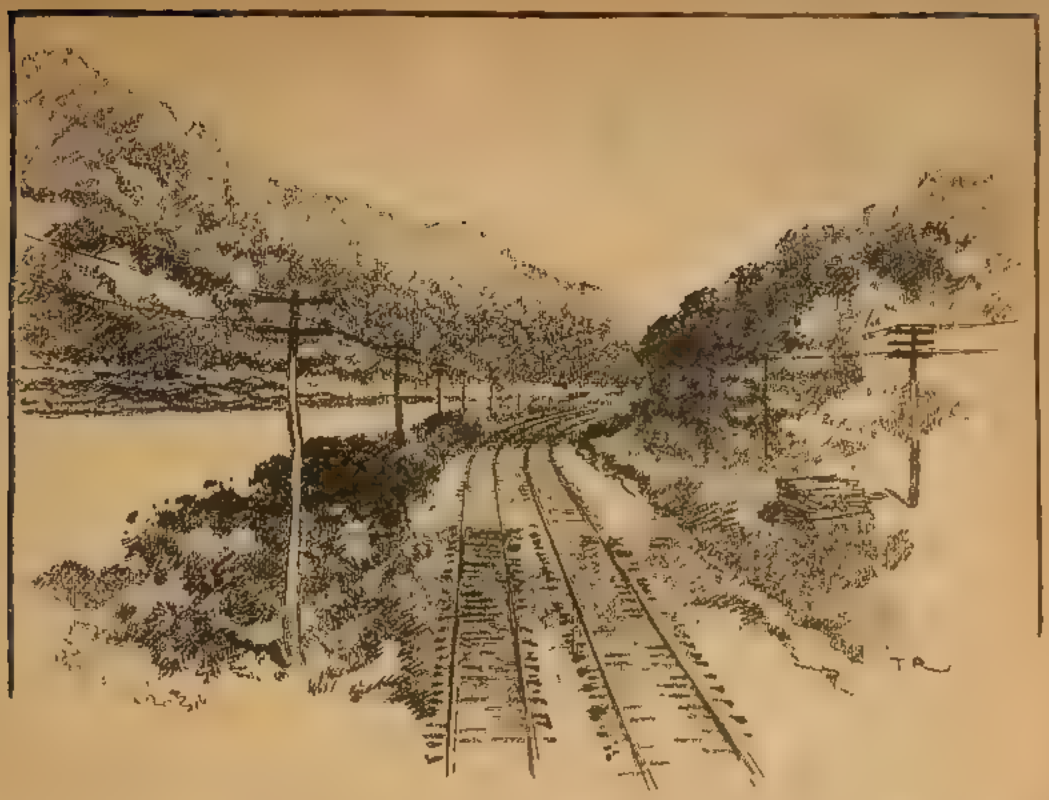
While all this rapid-fire excitement was taking place up at the head of the train, only three or four of the most wakeful of the passengers in the sleepers had the slightest inkling of what was going on. Some were for going ahead with Conductor Poffenberger and putting up a fight, but most of them dived back into their berths, and got exceedingly busy secreting their money and valuables in unlikely places, so as to be protected if the trouble extended back into their cars.

But the majority of the passengers didn't know a thing about it until they reached Pittsburgh the next morning and reporters approached them for accounts of the hold-up. The train was delayed so short a time by the hold-up that it came in practically on time.

At the first tower-station, Donnelly had stopped long enough to telegraph the news: "Train No. 39 held up, masked bandit, Lewistown Narrows, 1.30 this morning. Loss slight."

Within an hour a posse on a special train was on its way from the division headquarters to the Narrows, followed later by Willis. The Pinkertons had been notified, and were on their way; the State constabulary had sent out orders to look for the robber; local and long-distance telephones were buzzing all over the State; telegraphs were spreading the news to every flag-station, and the newspapers were hurrying the story over the land.

With the first break of light in the



LEWISTON NARROWS, PENNSYLVANIA, THE SCENE OF THE LAST GREAT ROBBERY.

East, the side of the mountain was literally alive with searchers. Suddenly a shout of joy rang out. Only a few hundred feet away from the spot where the fireman had dropped the sack, a bag had been picked up. It was heavy, and the searchers expected to find in it the pennies.

They literally yelled when they saw it was the bag of bullion. The robber had made another blunder, and had chosen the bag of pennies rather than the uncoined gold.

A few hundred yards farther was found a bag half full of pennies—the seal intact, but the bag slit with a knife. Handfuls of bright new Lincoln cents lay scattered in every direction.

Boys were set to work picking them up, and all but about six thousand five hundred were recovered. Even those made quite a load.

After the trail of pennies ended little further was found, except the torn and discarded envelopes of papers and the gunny-sack with the eye-slits.

Even when bloodhounds, kept for this very purpose by the B. and O., at Chillicothe, Ohio, had been brought to the scene, and had picked up the scent, it was soon lost.

The highwayman had disappeared as completely as if the darkness had swallowed him. The wide-flung net about the scene never gathered him in, in spite of the score of dogs and over two hundred officers and citizens.

And so, as usual, it was the little fatal mistakes after the big work had been done successfully that prevented one of the most daring hold-ups in the history of American railroading from being a complete success. Until it actually happened, no railroad or express official would have believed such a thing within the range of possibility on the roadway of any of the great Eastern trunk lines.

"There has been nothing like it to occur on any Eastern railway in some twenty-five years," said one official. "It won't occur again in twenty-five more. Possibly we have fostered the belief that such a thing could not be done here in the East, and were not looking for Wild-West episodes."

Fighting the Ticket-Scalpers.

BY H. A. KOACH,
Assistant Chairman, Railway Ticket Protective Bureau.

WE reproduce, to illustrate this article, specimens of forged tickets, others that have been "laundered," and still others that were treated with volatile ink. They show how far unscrupulous men will go to gain their ends. Some of these bogus tickets were so cleverly "made" that they fooled the keenest railroad men, and one daring scalper even boasted that it would be mere play for him to make a ticket that would be good "to ride around the world."

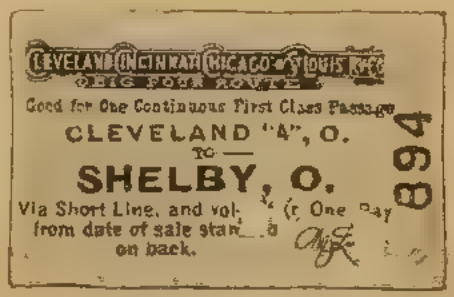
How the Protective Bureau Finally Landed on the Dishonest Scalpers and Began the Slow but Effective Process of Bringing Them to Justice.

SECOND ARTICLE.

FEBRUARY 3, 1903, the Railway Ticket Protective Bureau was effectively organized. Its object, as stated in its articles of organization, is "the detection and prosecution of forgers, counterfeiters, and unlawful manipulators of railway tickets or other evidence of passenger transportation, and such other duties germane to its purpose as may be assigned to it." It became effective at once.

The policy of the bureau was to be determined and its business conducted by an executive board consisting of the chairman or commissioners of the several territorial passenger associations. It was not realized at that time how strongly the scalper was entrenched nor the magnitude of the work to be accomplished in the elimination of these self-constituted railroad ticket agents.

The policy of the bureau was similar to that of the American Bankers' Association and the Jewelers' Security Alliance. No let-up on any suit commenced, no compromise of any kind, but simply constant and vigorous prosecution whenever and wherever sufficient evidence of lawlessness had been secured.



THIS TICKET HAS BEEN OVER THE ROAD TWICE. EACH TIME THE CONDUCTOR'S CANCELLATION WAS OBLITERATED BY THE AID OF A "B. C." PUNCH.

The first year was devoted to securing data and information showing the extent of the frauds practised by the scalpers, instructing conductors how to examine railroad tickets to detect manipulations, etc. The services of a corps of competent detectives, familiar with the scalping business, was secured.

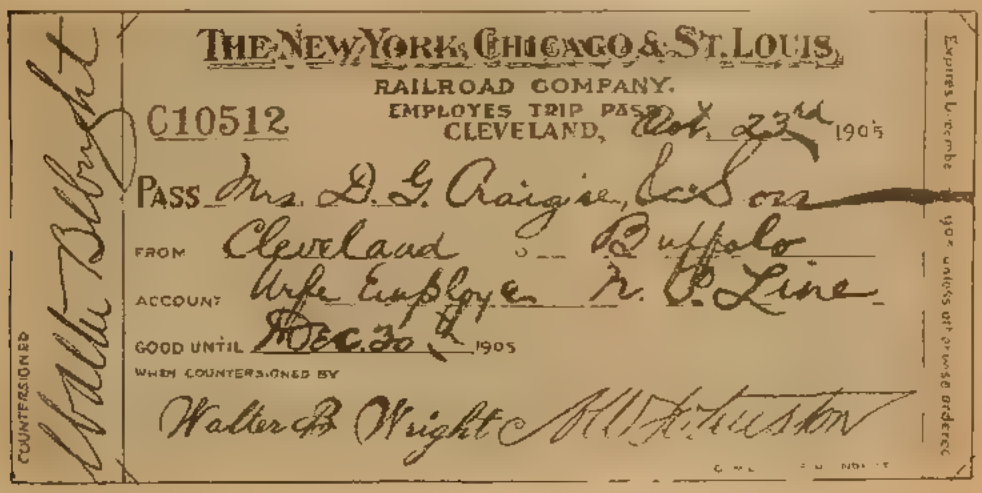
These men were sent to the larger cities and often obtained employment in scalpers' offices, thus being able to render daily reports advising the bureau of the frauds perpetrated by these people.

Through this systematic supervision the bureau was soon in possession of the necessary information with which to wage a successful warfare against this illegal traffic.

It was found necessary to secure the

The membership lines of the bureau were advised by circular letters of irregularities discovered, and suggestions were made to them how to safeguard their tickets. Where a ticket was in use that could be easily altered by scalpers, its withdrawal and the substitution of one more difficult to manipulate was recommended.

The use of safety inks, in the filling out of tickets, which would withstand


THE NEW YORK, CHICAGO & ST. LOUIS RAILROAD COMPANY.
EMPLOYES TRIP PASS
C10512
CLEVELAND, Oct. 23rd 1905
PASS Mrs. D. G. Raigie, & Son
FROM Cleveland to Buffalo
ACCOUNT Wife Employe N. Y. C. Line
GOOD UNTIL Dec. 30 1905
WHEN COUNTERSIGNED BY
Walter B. Wright
Walter B. Wright
Expires December 31st, 1905, unless otherwise ordered.
COUNTERSIGNED

IN THIS TICKET, THE WORDS "& SON" WERE ADDED BY THE SCALPER. THE LIMIT OF THE PASS WAS EXTENDED FROM MAY 30 TO DECEMBER 30.

cooperation of the auditing departments of the railroads, so that altered tickets found in collections would be sent to the bureau with as little delay as possible.

It was soon learned that the majority of altered tickets emanated from such cities as Atlanta, Indianapolis, Chicago, St. Louis, Buffalo, Kansas City, Denver, Cincinnati, San Antonio, and New Orleans.

Such altered tickets as came to the notice of the bureau, through the collections of the railroads or through purchases made at scalpers' offices were carefully examined, each alteration noted and compared with manipulations in other altered tickets, and also with the reports of the detectives employed by the bureau.

Checking Up Scalpers.

In this way the workmanship of the different ticket "fixers" became familiar and distinct traces of them and their work could be maintained.

the acid tests, and many other suggestions of a like nature were urged. Blank forms were prepared for the use of conductors when altered tickets were found in the hands of passengers. These tickets were "lifted."

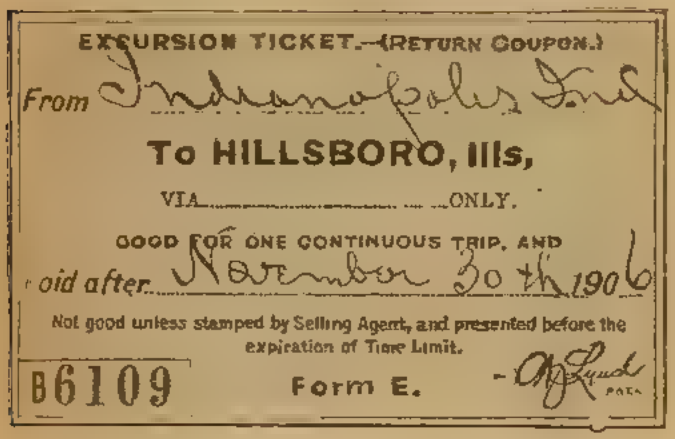
The passenger was required to give his name and address; date of purchase of ticket; name and description of party from whom ticket was purchased, and what rebate order, if any.

The conductor also had to secure whatever statement a passenger was told to make to a conductor; what envelopes, cards, papers, or letters, for purpose of identification a passenger presented; to what point baggage was checked on a ticket; whether the baggage was checked by the passenger or another party; also getting a description of the ticket, with its number, date, etc.

Many other suggestions were made and adopted by the railroads, and it was their cooperation with the bureau in every matter brought to their attention which

largely contributed to the great measure of success achieved.

If any question ever existed as to the necessity and expediency for such an organization as the Protective Bureau, its experience effectually dispelled the doubt. What the bureau was enabled to discover in the extent and character of the frauds which were boldly perpetrated by these lawless ticket-scalpers should convince even the most skeptical that it is fitting they were put to an end.


EXCURSION TICKET.—(RETURN COUPON.)

From Indianapolis Ind

To HILLSBORO, Ills,

VIA.....ONLY.

GOOD FOR ONE CONTINUOUS TRIP, AND

void after November 30th 1906

Not good unless stamped by Selling Agent, and presented before the expiration of Time Limit.

B6109 Form E. A. J. Lynch AGT.

THIS TICKET WAS ORIGINALLY SOLD FROM LITCHFIELD TO HILLSBORO, ILLINOIS. "LITCHFIELD" WAS REMOVED AND "INDIANAPOLIS, IND.," SUBSTITUTED.

Perhaps the most profitable manner of swindling the railroads was by altering the destinations on tickets, thereby enhancing their value.

All Writing Removed.

For instance, a ticket would be purchased by the scalpers at the railroad station, reading over more than one railroad and requiring the issuance of two or three coupons. A skeleton form of ticket—which is one whose coupons are in blank—would be used to route the same, the names of the railroad line and the destination being placed on it in writing by the agent.

The scalper would submit the entire ticket to a bath in certain liquids, thereby removing all trace of writing. If the ticket was too much discolored by the acid it would be dyed or recolored with water-colors and restored to its original tint.

To further avoid detection it would be used on night trains only. The ticket would then be routed *via* some line which would permit the longest possible haul, in this way often enhancing the value of the ticket ten-fold.

Good Around the World.

When one considers that a single coupon frequently carries a passenger a great distance, as from Chicago to Albuquerque; and another from Albuquerque to California points, it is easy to see the enormous profits made by the scalper from the sale of tickets manipulated by this method.

The boast made by one of the scalpers is *apropos:* "Give me any kind of ticket with enough coupons on it, and I will make it good to ride around the world."

The plugging of expired tickets, examples of which are shown in the illustrations, became so general that scalpers thought nothing of it. The writer recalls an incident to the point, showing the extent of the moral perversion among these scalpers, when one of them called on him and protested against the surveillance maintained on his office.

He claimed that he was absolutely honest and never resorted to altering or changing the destination of tickets, but at the same time admitting frankly that expired tickets were plugged and sold by him, saying that every scalper did this and it was not considered a dishonest practise.

In the Laundry.

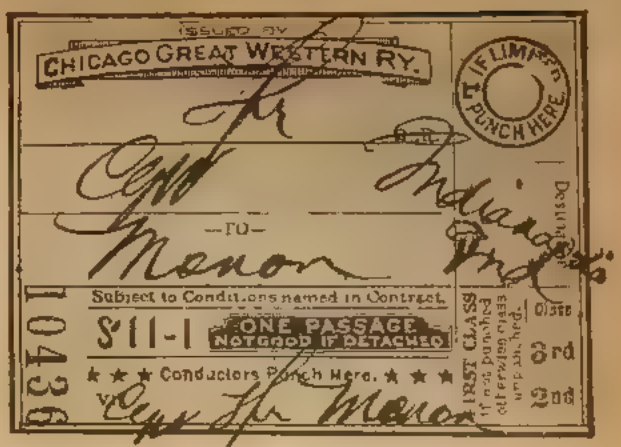
It was considered good form and a business necessity to have what is termed a "laundry" in connection with every ticket-scalping office. This "laundry" was a back room where the ticket or pass received its final touches in alterations.

It is a well-known fact that almost every pass which found its way into the hands of a scalper and which read, "Good for John Brown," had the addition of "and wife" or "and sister"

placed upon it, thus making it good for two persons.

If a call came for three persons to use the pass, the addition "and daughter" or "and son" was made. The railroad companies, no doubt, would now be carrying entire battalions on this class of transportation if Mr. Scalper had not been suppressed.

Lost or stolen annual passes, issued to railroad employees of different lines, found their way to the scalpers, who made a specialty of this class of transportation. Such a pass usually had the name of the person to whom issued typewritten on its face. All trace of writing would be removed, the number of the pass would be changed, and it would then be made to read for "John Brown and seven men" on a count of "advertising" or "construction."



PART OF TICKET SHOWN AT BOTTOM OF THIS PAGE.

Large Profits Made.

Parties of six or seven people would be made up and the pass placed in the hands of one of the creatures or employees of the crooked scalper, who would accompany the passengers to their destination, being careful to keep the pass in his possession.

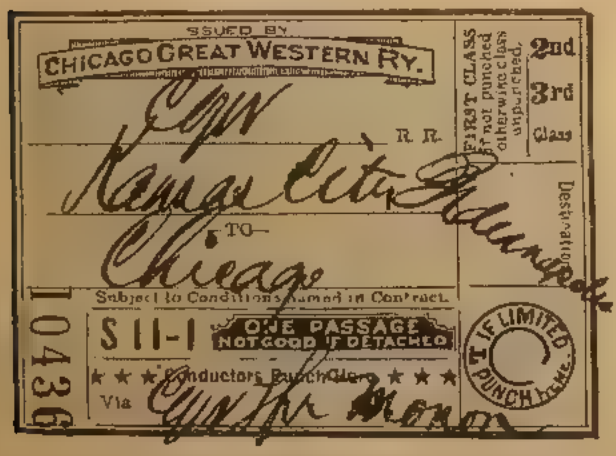
"Old stock" (expired tickets) which had accumulated in the hands of the larger scalpers who were too conscientious to make the alterations themselves or sell them over their counters to their customers, but who were not too scrupulous to dispose of them to other scalpers, would be eagerly competed and bid for by the smaller fry.

In fact, the saying became common that "a ticket never expired in a scalper's hands." Some of these buyers of expired transportation traveled to smaller cities where scalpers had been in business for years, and for a few dollars purchased large numbers of such tickets.

Even if some of them could not be revived, due to the fact that the year calendar limits would not permit, they could always be used for matching or plugging other tickets, the paper of which was the same color, and the coupons used to paste onto other contracts—thus making one ticket out of two.

The contract form, giving the year, month, and date calendars, is generally termed a "header," and represents the issuing line. Coupons can, of course, be routed *via* any line with which the contracting lines has interline routing agreements, and, therefore, large profits could be made by the use of the coupons from the expired tickets.

Frequently, through tickets are canceled by the first conductor by one or two punches in the lower right-hand corner, by the second conductor in the middle of lower part of ticket, and are supposed to be taken up by the third con-



TICKET ORIGINALLY ISSUED TO SHORT DESTINATION, OF A VALUE ABOUT $6, MADE TO READ FROM KANSAS CITY TO CHICAGO, CHICAGO TO INDIANAPOLIS AND INDIANAPOLIS TO MONON, THEREBY ENHANCING ITS VALUE TO ABOUT $18.00.

ductor. Scalpers will send a ticket the distance of the first conductor's run, receive the ticket back by mail, showing but one cancellation in lower right-hand corner.

With their shears they will cut off this cancellation and send the ticket out for a second run. If the cancellation cannot be removed in this way, it is altered by the aid of the "B. C." punch, which indicates that baggage has been checked.

This "B. C." punch usually obliterates the conductor's cancellation. If this cannot be done, cancellations are promptly plugged, and in this way, two or three and sometimes as high as ten rides, over the division of this conductor, can be accomplished before the ticket is finally sent through to its destination.

More Scheming.

To avoid the scrutiny of the gatekeepers, a ticket is purchased to some short destination and presented at the gate so as to permit the passenger to pass through. He is told to present the ticket bearing the longer destination to the conductor, who, supposing that it has passed the scrutiny of the gatekeeper does not give it as close an examination as he should.

If the conductor is known to be careful or "wise" to altered tickets, the scalper either avoids sending such ticket over his run or furnishes the passenger with a ticket to the end of the conductor's run, and instructs the passenger to present the altered ticket to the second conductor, the scalper having first placed proper cancellations on it to mislead the second conductor into the belief that it has passed the scrutiny of the first one.

To the layman who is unfamiliar with the methods of railroading, it would seem impossible or unreasonable that forged tickets could be used to such an extent as to seriously affect the revenues of the railroads.

It would be reasoned that, inasmuch as tickets are cancelled by the conductor, and turned into the auditing department, the fraud would be discovered at once. This is true provided the tickets always reach the auditing departments, but this is not the case.

One of the cleverest forgeries perpetrated in Chicago a few years ago was by the following method:

An entire forged ticket, purporting to be issued at some Eastern point, having but one coupon to its destination *via* a Western railroad, was extensively dealt in by a gang of forgers, who never sold the ticket to its destination, but to some point short.

Rebate from Passengers.

In other words, they never permitted the ticket to get into the hands of the last conductor to cancel it. They would exact a rebate from the passenger, draw a sight draft on the bank in the town where he was going for the amount of the rebate, and would at once send to this bank the amount to be paid on delivery of the ticket, the bank returning the unused portion of the ticket to them by mail.

So careful were they to whom they sold this ticket, that a prospective purchaser would be shadowed during the entire day by boys employed for the purpose.

If the passenger in any way aroused suspicion by entering one of the regular railroad ticket-offices or a building where one of the passenger associations was located, or could not give the names of reputable citizens of Chicago to vouch for him, the ticket would not be delivered to him.

It required considerable skill and patience to gather sufficient evidence with which to successfully prosecute this gang of forgers, but it was finally accomplished and they were sentenced to terms in the penitentiary of Illinois.

I recall quite vividly an instance in the trial where one of them made the claim that we could never produce evidence to convict, as they had been careful not to sell to "stiffs"—a "stiff" being some one employed by the bureau to test the scalpers.

His Waterloo.

This name was also given to any one arousing suspicion. A clerk would use the words "stiff hat" in conversation with a scalper to indicate that the party trying to purchase a ticket was a spotter.

At the trial in question, the witnesses had been kept in the background, but during the conversation had with the scalper, an elderly, benign gentleman entered the court-room.

The scalper gave a horrified gasp and exclaimed, "Great Heavens! That isn't one of your witnesses, is it?"

I replied that it was.

He said, "Let me tell you. That old man was passing my office one morning with a folder in his hands. He looked so good to me that I asked him if he would not like to buy a cheap ticket. He replied that he would; that he was here visiting his daughter, but that he intended to return to his home in Minnesota the next night.

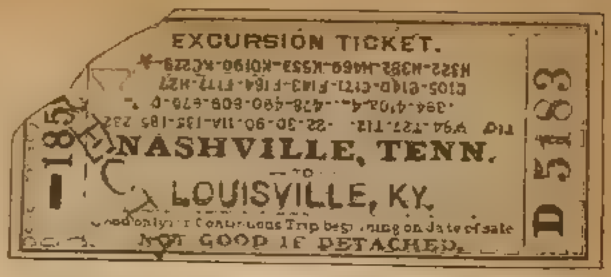
"He was so unsophisticated, apparently, that I induced him to buy one of these 'phoneys,' never even requiring him to pay a rebate, but simply giving him an envelope directed to me in which to return the unused portion.

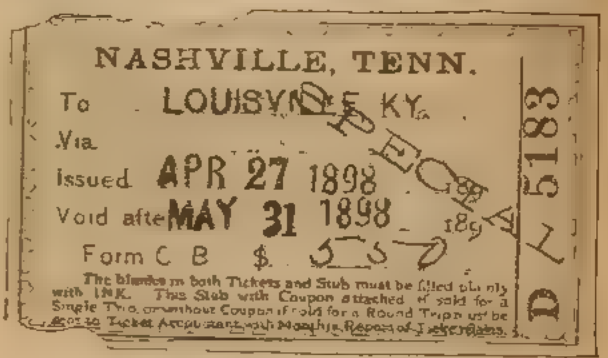
"I gave him a lot of advice as to the many pitfalls of a great city, even going so far as to take him to the elevated railroad and showing him just how to reach his daughter's the easiest way. I surely got a hot one when I picked up this chap."

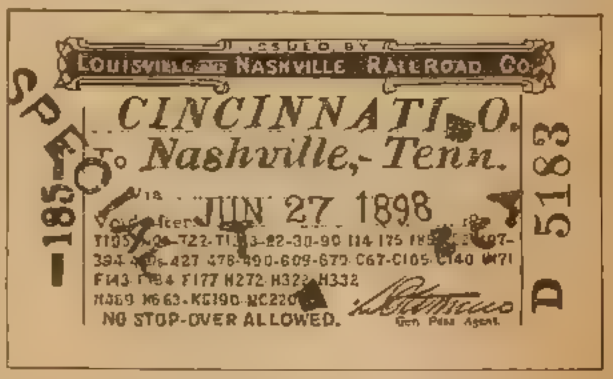
We are glad to state that this benevolent-looking old man made one of our best witnesses and aided materially in the conviction of the forgers.

There was considerable danger in the printing of an entire fraudulent issue of railroad tickets. A safer, but as profitable, method was purchasing tickets to some short destination directly from the railroad companies. This destination would then be erased and a destination to some point on a branch line close to a junction point would be printed on them, the printing making the ticket appear more *bona fide* than writing would have done.

This junction point being where the conductors changed, the ticket would remain in the passenger's hands, merely showing the first conductor's punches, and he would pay cash fare from the junction point to his destination. At the destination the ticket would be turned over to a confederate of the scalper and a small rebate paid the passenger. The







HERE ARE REPRODUCED THE STUB AND GOING AND RETURNING-COUPONS OF A TICKET ISSUED BY THE LOUISVILLE AND NASHVILLE RAILROAD, APRIL 27, 1898, FROM NASHVILLE TO LOUISVILLE AND RETURN, AT ONE FARE FOR THE ROUND TRIP. THE GOING PORTION OF THIS TICKET WAS PROPERLY USED. WHEN THE RETURN PORTION APPEARED IN THE COLLECTIONS OF THE AUDITOR IT WAS DISCOVERED THAT THE TINT HAD BEEN ENTIRELY REMOVED FROM IT AND THAT THE WORD "CINCINNATI" HAD BEEN SUBSTITUTED FOR THE WORD "LOUISVILLE." ALSO THAT THE RETURN LIMIT HAD BEEN RAISED FROM MAY 31, 1898, TO JUNE 27, 1898. THE ACTION OF THE ACIDS NECESSARY TO REMOVE THESE NAMES ALSO DESTROYED THE TINT. COMPARISON ALSO SHOWS A DIFFERENCE IN STAMPS OF THE WORD "SPECIAL."

ticket would be returned to the original scalper, who would use it again and again after the cancellations had been plugged.

Crooked Scalpers Organize.

The rebating of these forged tickets necessitated some organization of the crooked scalpers, and what was known as the "American Traveling Brokers' Association" was formed. This organization had no offices or officers, and its only purpose was to hoodwink the traveling public into the belief that they were dealing with members of a legitimate organization among the scalpers known as the "American Ticket Brokers' Association."

The members of the fake association displayed membership certificates on their walls to which they would point when passengers hesitated about buying a ticket, saying, "We are regular members of the American Brokers' Association; we guarantee our transactions and if anything should happen that this transportation is not accepted, we would be compelled to refund your money."

These men, in case of arrest and prosecution, would flock to the aid of each other, many would commit perjury without the slightest hesitation, approach jurors during the progress of the trial, and in fact would do everything they could to defeat the ends of justice.

A Special Ink Used.

One of the earliest impositions practised by the scalpers was that of using volatile ink in signing tickets. This ink when dry could readily be removed by rubbing with a cloth or brush. In purchasing a round trip signature form of ticket from the agent at the station, the passenger would be instructed to use a fountain pen furnished by the scalper, containing this ink, and to sign his name lightly.

The ticket would then be used to its destination, the return portion rebated at the scalper's agent, who would promptly remove the signature as explained, placing thereon the name of some other purchaser to whom he had sold this portion of the ticket.

Children's tickets, issued at half rate, or half tickets were another source of profitable income. The figure "½" which had been cut out by a punch would be plugged, or if written in it would be erased, and in this way the ticket could be made good for an adult.

One of the most flagrant swindles perpetrated by the scalpers was that of inducing passengers to use what they termed the "Fast Stock Express."

In a large city like Chicago there are many men who are temporarily stranded and who are willing to ride in almost any kind of car to reach their homes.

The scalpers had arrangements to furnish helpers to a number of stockyard agents who shipped cattle to Eastern points. These helpers were required to "punch up" the cattle that fell down in the cars. Long poles were furnished these helpers and the work was very arduous.

"Fast Stock Express."

The scalper would tell a party who came to him for a cheap ticket that he would get him home for a small sum. He would, of course, have to ride on the "Fast Stock Express," but that it only took some three or four hours longer than the passenger-trains to make the trip. Furthermore, he would have a delightful journey, and could rest in the caboose, which was almost as comfortable as a sleeping car.

After separating the unsophisticated one from his money a trip would be made to the stock-yards, the man turned over to the agent, and the profits divided. The agent would put the man in the caboose, and after the train left the city the victim would be handed a long pole and told to work.

If he refused he would promptly "hit the gravel" some two or three hundred miles away.

It frequently happened that more victims were secured than could be accommodated on these stock trains, but this did not deter the scalpers from taking the money for the "Fast Stock Express."

One night a Polish Hebrew was found sitting disconsolately in an empty caboose at the stock yards. The night-watchman asked him what he was doing. He said

he was waiting for the train to start, that he had paid his money to a ticket-scalper who had put him aboard the caboose, which he could not be induced to leave until the police were called.

He afterward endeavored to get his money back from the scalper, but was compelled to sue. The case was aired in all the newspapers at the time. Many letters of complaint were received by the scalpers from their victims whom they had induced to take this journey, which they read to each other with merriment.

The railroads thought that they had solved the problem of avoiding manipulations and alterations of tickets when they instituted what is called a train check. All tickets presented on trains were at once taken in charge by the conductor and train checks were issued. In this way a ticket was at once turned over to the auditors.

Train Checks Useless.

It was found, however, that the scalpers were as expert in forging these train checks as they were in forging tickets. Entire issues of them were counterfeited, and the same methods were used to prevent their falling into the hands of the auditors as in the case of tickets. The following clever method was evolved by a Denver scalper:

A train check bearing a thirty-day limit reading from Denver to Chicago would come into his hands. He would sell forged train checks, bearing this same number, as far as Kansas City, having them mailed back to him by an associate on whom it was rebated.

He continued to issue forged train checks during the entire month, bearing the same number as the original, the numbers being placed on with a numbering machine. In this way he could keep a train check working every day, bearing the same number; but if, by chance, the forged train check was not mailed back to him he would cease using that number immediately.

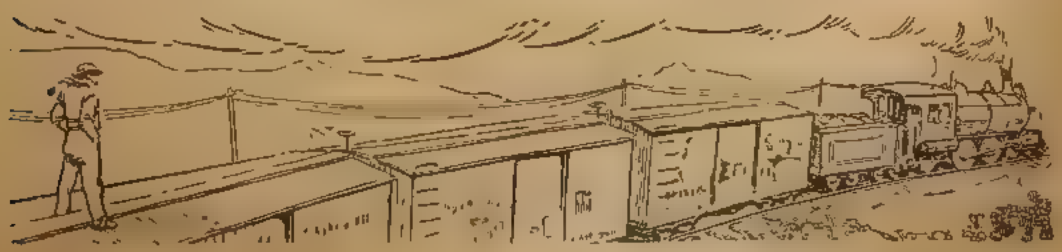
The forged check going to the auditors would check up with the envelope from which the original had been taken and, of course, would be found correct. Thousands of dollars were lost to the railroads by this method before it was exposed and the guilty scalper prosecuted.

Worked Even When Insane.

Such, in brief, were the miscreants the Protective Bureau were pitted against. It found them bold because they had so long been undisturbed in their vocation. It found them skilful because their calling required skill. It found them hardened in their vicious practises. But, in the end, it invariably found them cowardly and cringing when brought face to face with the law.

A certain scalper, one of the cleverest ticket-forgers in the country, was employed by a St. Louis scalper, solely for the purpose of altering and forging tickets. His work became well known, and the constant fear of arrest and prosecution, together with the close confinement day after day and month after month, shattered his health and he became a nervous wreck. Finally he was taken to an insane asylum, where he died. It is said that during the time he was in the asylum the only thing that would quiet him was to give him pieces of colored paper, some paste and the tools of a ticket-forger, with which he would contentedly work, under the delusion that he was still altering railroad tickets.

The third and last article in Mr. Koach's series will appear in our December number. It will deal with the methods by which the dishonest scalpers were finally put out of business.



A TALLOW-POT'S LAMENT.

BY JOHN C. RUSSELL.

Written for "The Railroad Man's Magazine."

THE engineer rides on his seat;
The conductor rides back in the car;
The brakey, by Moses!
Leads a life full of roses,
But the tallow-pot handles the bar!

The yardman, he's home every night;
The hogger, he sleeps on the road;
The hostler gets hay
All night and all day,
But the fire-boy must move all the load.

The trunk-smasher's job is a pipe;
The flaggy, his job is a dream;
But you hear me whoop
For the lad with the scoop,
'Cause he manufactures the steam!

It's down with his dirty old phiz,
A shoveling fit to beat sin;
The conductor's all right,
A neat, pretty sight,
But the fire-boy gets 'em all in!

The brass collars, t. m's., and supe's
Are dandy when all's said and done,
But they couldn't go far
If the lad with the bar
Didn't hustle 'em over his run!

So sing of your bold engineer,
Driving a monster of steel!
He is great in his place,
But if old dirty face
Don't hustle, he won't turn a wheel!

THE DAUGHTER OF THE IDOL.

BY JOHN MACK STONE.

Three People Take an Involuntary Voyage and Uncle Sam Is Defied to His Face.

CHAPTER I.

A Fight in the Bay.

PERHAPS it was because I was raised inland that the boat interested me. I stood at the edge of the dock, ten feet above the surface of the water, looking down at it intently. Of course, I had seen skiffs on the park ponds, and larger rowboats on the inland rivers, but never such a rowboat as this—a craft where twenty men could work at the oars, and wide enough to permit a line of passengers between the rowers.

It was shaped peculiarly, too — cut away at the bow to permit a speedy passage through the water, low amidships, raised high at the stern. This high stern fascinated me, and I caught myself wondering why it should have been built so. I was to learn within an hour just why; and to give thanks that it was so.

Almost before I realized it, it was dark. I took my eyes from the boat and looked out upon San Francisco Bay. A short distance away a brilliantly lighted man-of-war rode at anchor. Out toward the Golden Gate, red and green lights told where a tramp steamer was anchored. The boat below me belonged to the tramp steamer. I knew that much, for I had seen it leave the steamer three hours before.

I had watched, fascinated, as the regular, long sweep of the oars carried it across the water toward the dock. From a distance I had watched the men disembark—a crew of tough-looking ruffians I thought at the time, the majority of them foreigners, jabbering some foreign tongue, their hands and faces seamed by rough work and living, and red from contact with sun and wind and sea. They had gone up one of the narrow side-streets, leaving one of their number behind to guard the boat.

I had watched, too, as this fellow paced back and forth restlessly, muttering to himself, evidently chagrined because he could not join his companions in their revel, or work, whatever it was that had brought them ashore. After an hour had passed, he had slipped away into another side-street, perhaps to some resort. And at the time I stood above their boat, as night was falling, none of them had returned.

It came to my mind suddenly that my interest in things which were new to me had dulled my common sense, that it was already far past the dinner-hour, and that my uncle would be anxious concerning my whereabouts.

It would be better to explain here and now that my uncle is Richard Engle, the famous explorer. A month before, he had visited my mother and me in our home town in Indiana, and had entertained us with tales of adventure in foreign lands.

He announced that it was necessary for him to make a trip to San Francisco on business, and I begged to be allowed to go along. My mother had consented; that was how I came to be looking foolishly down on this wonderful boat in San Francisco Harbor.

Everything interested me during the ride to the coast, but it was after I reached the sea that my real interest was aroused. For a week I had made daily pilgrimages to the bay, there to sit on

the dock and watch the ships come and go, load and unload, arrive from and depart for the uttermost parts of the earth.

This was the first time, however, that I had failed to return to the hotel by six o'clock. I decided that I should return at once and never remain away so late again. I remembered, too, that Uncle Dick had tickets for the theater, and if I did not hurry we should be late at the play.

As I turned to go up the dock toward the street, there came a Babel of cries behind me, the rush of many feet, screams and curses, and a shot. It seemed that my heart stood still. I was utterly unable to move, for the din was one to strike terror to the heart of a boy unused to such events.

Before I could step to one side the rush of men was upon me. In the darkness I could not see much, could only realize that the men were those I had seen come ashore in the boat below me. They had been drinking, evidently, and had had trouble with the police, for they seemed highly excited, and cried to each other loudly, and rushed toward the boat, intent only upon getting in her and getting away.

The rush came so quickly that there was no time for me to escape.

Half a dozen men hurled themselves against me, I felt my feet slip, felt myself falling through space, gave a scream that was not heard in that unearthly din, struck against something hard with such force that the breath was knocked out of me. Before I could regain my feet half a dozen men were upon me, falling, fighting, screaming, struggling to get at the oars.

Other men sprang down upon us, sprawled to their positions, cried out to each other in voices of anger and fear. I realized dimly that one man was fighting as though to regain his liberty, that his clothes were half torn from his body.

I saw an oar lifted, saw it descend, saw this man who fought rendered senseless by the blow. I had not seen his face, yet I had seen enough to convince me that he was not like the others, but was American or English.

Some one gave a command in a loud voice, and then I realized for the first time that I had been thrust into the big boat at the foot of the dock by mistake, and that the boat was rushing through the water as fast as the rowers could send it.

On the dock there was another chorus of cries.

"Stop! Stop, or we'll fire!" screamed a voice.

The men in the boat began cursing again. I heard shots, saw flashes of fire back at the dock, heard bullets whistle by. Instinctively I flinched and got down as low as possible in the bottom of the boat.

Two men who were not rowing began to fire in return. Then a regular battle began between the men in the boat and the men on the dock, and all the time the cursing rowers pulled at their oars, rushing the big boat through the water.

Directly in front of me a man screamed, threw his hands above his head, and toppled to one side. One of the men who had been firing at the dock sprang to the vacant place. The wounded man was kicked aside.

I had been unable so far to make my presence known, and now fear clutched at my heart, for such brutality was new to me, and I began to wonder what my fate would be at the hands of these men.

I decided to remain in hiding as long as possible, to wait until my presence in the boat was discovered, and then tell a truthful story and trust to their mercy, or the mercy of their commander. The men on the dock were still firing, but the men in the boat had ceased to reply to their fire.

Near the stern there was a pile of canvas, and toward this I crept as cautiously as possible. Owing to the darkness and excitement no one saw me.

As I reached the pile of cloth I noticed for the first time that a motor-boat was coming after us swiftly, and wondered whether it was endeavoring to overtake us. I was not to remain in doubt long, for as the motor-boat approached some one in it commanded our boat to stop, and upon getting no answer, opened fire.

I crept beneath the canvas. My heart was pounding at my ribs. Our boat stopped, and the firing became heavier. All the rowers were using their weapons now.

Presently the boat shot forward again. I put my head from beneath the canvas. The lights of the motor-boat were far astern. The men in it had been slain, or had retreated before the heavy fire. I could tell by the lights that the motor-boat was putting back toward the shore.

Then I looked ahead and saw that we were near the tramp steamer. As we drew nearer, some one from the steamer hailed, some one from our boat answered. We drew alongside, and the men scrambled over each other in a frenzied effort to get on deck.

By peering from beneath the pile of sail-cloth I saw the two men handed up —the sailor who had been shot and the other man who had been rendered senseless by a blow from an oar.

There were quick demands from some one who spoke in a tone of authority. I hid beneath the canvas again, for the boat was being swung to the deck of the steamer.

My sensations at that moment were unpleasant, and I shall not attempt to describe them. It seemed that even before the boat I was in had reached the deck the steamer was under way and rushing down the bay toward the Golden Gate.

My terror increased. I was on a ship leaving port, bound I knew not where, companion to men whose appearance bespoke them brutes and who were evidently at outs with law-abiding people. What was to become of me? What would my uncle think?

I peered from beneath the canvas again, crawled out and raised my head cautiously until I could look down at the deck. A group of men stood beneath a light before the forward mast.

In the center of the group, upon the deck, was the body of a man—the man who had been struck with the oar. One of the sailors was dashing water in his face, another was holding liquor to his lips.

He seemed to regain consciousness, then struggled to his feet quickly and faced toward me, the sailors holding back his arms so that he could do no harm. As he faced the one I took to be the ship's captain, the light fell full upon him.

I gave a cry that would have betrayed me but for the throbbing of the ship's engines and the roar of the wind through the rigging.

The man on the deck below, clothes half torn from him, his face covered with blood and dirt, his eyes flashing angrily—was Uncle Dick!

CHAPTER II.

Under Fire.

SO great was my astonishment that I lifted myself half over the gunwale of the boat, trying to see and to hear. Then I realized my position, and became more cautious

The steamer was rushing down the bay toward the harbor entrance, the black smoke pouring from her stack. Far behind, another vessel rushed after us, evidently a police tug or a revenue cutter. I saw all this at a glance, then gave my entire attention to the scene on the deck below me.

Uncle Dick was still struggling with the men who held him, and as I watched his struggling ceased, and I knew from the look in his face that he felt this was a time for cunning rather than brute force.

"What is the meaning of this outrage?" I heard him demand. "What ship is this? Where is her commander?"

The man I had taken to be captain stepped nearer Uncle Dick and laughed.

"This is a steamer that changes its name whenever it pleases the skipper," he said. "The skipper changes his name as often as he pleases, also. At present this is the steamer Faraway, and I am Captain Hawson."

"Why was I decoyed to the water-front, and there seized and made prisoner and carried aboard this craft?" my uncle demanded again. "If you have made a mistake in the man it would be better to right it instantly."

"Your name is Richard Engle?" demanded Captain Hawson.

"If it is, what follows?"

"Well, if it is, it follows that there has been no mistake," the captain replied with his evil grin.

My uncle shook himself free of the two sailors who held him and took a step forward, facing Captain Hawson.

"Will you tell me why I am on this ship?" he demanded.

"Do you not know?" the captain asked.

"Most certainly I do not. Where is this ship bound?"

"The port is not on the charts," said the captain laughing.

"I demand that you answer me!"

"Demand away!" cried Captain Hawson. "You are not going to whip my entire crew and force an explanation, are you?"

There was no mistaking the venom in the captain's voice. My uncle turned and glanced around him at the evil faces glowering at him.

"A splendid collection of thugs!" he cried. "You must have scraped the slums of the world to get them!"

Evidently some of the men understood English, for there were quick murmurs among them, and two or three started toward him. But Captain Hawson raised a hand in warning.

"Don't touch him!" he cried. "I'll shoot down the first man who raises a hand against Mr. Engle."

Uncle Dick whirled upon him.

"So!" he cried, laughing himself. "That is the way matters stand. You have walked into my little trap. You have not decoyed me aboard the Faraway for purposes of your own, then, but are only an agent for some one else.

"Very well. If you have orders to deliver me a prisoner at a certain port, be sure that you carry out your orders."

"We'll carry out the orders, all right," answered the captain angrily.

"And in the meantime, no matter how nasty I get, you will see that I am not harmed—is that it? I am worth money to you if delivered to a certain port alive, and worth nothing to you if dead. Is that it? Now we understand each other"

"Perhaps we do not," said the captain.

"You'll not tell me the ship's destination?"

"Not at present."

"I am to make myself at home aboard, I suppose?"

"You are to be made comfortable. But do not try any tricks," Captain Hawson warned. "You might as well take it easy. I have nothing to do but capture and deliver you. I'm not supposed to torture you. The torture, I understand, will come later."

Again the captain smiled that evil smile, and turned to give some orders to one of the crew. My uncle brushed back the hair from his brow, and looked ahead toward the Golden Gate.

"My dear captain," he said, "you are perhaps forgetting that your men created something of a disturbance while capturing me. You are perhaps unaware that the police knew something was wrong; that I was able to call out to them that I was being abducted. It is just possible that there is trouble in store for you. There is a tug following."

"The tug will scarcely overtake us once we are upon the sea," the captain said.

"It is possible that the fortifications at Golden Gate have been warned," Uncle Dick said. "They may be on the outlook for you."

"A ship has the right to leave port, sir," the captain thundered.

"Not at night without proper clearance papers, especially when her skipper and crew run away from the police."

"I am not worrying about the fortifications," the captain said.

"Then there are revenue cutters."

"They'll have to hurry to catch us."

"Perhaps you are used to evading the authorities," my uncle insinuated.

Captain Hawson walked nearer to him.

"Perhaps I have had some little experience in that line," he admitted. "And perhaps your talking about it will do no good. Suppose we let the matter drop for the time being."

"Willingly," my uncle replied. "Especially as you are to be busy with other things for the present."

"What do you mean?" the captain asked.

"There!"

I saw Uncle Dick point to port. From one of the splendid fortifications which guard San Francisco's harbor a long, bright finger of light shot out and illuminated the bay. Back and forth it swept, resting for a couple of seconds upon every vessel it spotted. They were sweeping the bay with searchlights.

Captain Hawson issued orders quickly. Before he had concluded the search light rested upon the Faraway, followed it, made every inch of the ship as light as day.

The Faraway continued on her course. Behind us the tug gave sharp, quick whistles, imperative commands for us to stop. Captain Hawson gave them no attention.

I heard the report of a heavy gun, and realized that the fort was issuing a command of its own. Still the steamer continued on her way. Other searchlights flashed out from the other fortifications. The narrow harbor entrance was as light as light could make it.

There came another shot from the fort, more whistles from the following tug. Then the whistle of the Faraway spoke, loud and clear, like a human being demanding to know what the row was about. I saw two of the men run aft, saw them unfurl the Stars and Stripes to the breeze. Then the Faraway whistled again, and kept on.

But the forts were not satisfied. There was another report, and a shell screamed past ahead of the steamer. Instead of stopping she put on more speed and dashed into the entrance.

Searchlights flashed angrily, the pursuing tug continued her staccato whistling. I heard the report of another gun, heard something strike, saw a blinding flash, and heard a deafening roar.

The fort had done with nonsense. The shell had struck the deck, and a splinter had evidently smashed into some part of the boat in which I was concealed. Cries told me that some one had been injured. Throwing caution to the winds, I raised my head above the side of the boat and peered down.

Two men were wounded upon the deck. Captain Hawson was cursing and crying out orders at the top of his voice. Uncle Dick stood beside the mast, one hand upon it, smiling at the scene.

"Perhaps you had better stop the steamer," I heard him say.

Captain Hawson looked keenly down the narrow, illuminated strait for a moment, then smiled queerly. He shouted an order, and slowly the ship's engines quieted their throbbing, and she stopped. A confident smile crossed uncle's face.

"So you have concluded that discretion is the part of valor that appeals most to you just now?" he said.

"Exactly," answered the captain, strangely undisturbed. "I hate to waste United States powder almost as much as I hate to run the gantlet when there is an easier way to escape."

Scarcely had he finished before it was apparent what he meant. The vanguard of a dense sea-fog was already creeping over the bow and turning the white searchlight to a dirty yellow. Soon the daylike glare had become an elusive, scarce visible, smear, and to sight a gun upon any object in the Golden Gate would have been an absolute impossibility. A sharp, triumphant order came from Captain Hawson, and the Faraway dashed recklessly on and on, courting destruction every moment, but with the luck of daring she gained the open sea.

CHAPTER III.

I Meet a Lady.

TWO men sprang forward to carry out Captain Hawson's command to cut away the wrecked boat in which I lay. I felt the ropes give as they worked at them. We were outside the range of the searchlights now, and it was almost pitch dark, save where the light from the mast cast its narrow reflection.

While the men worked at the ropes below I slipped as near the deck as possible, undecided whether to show myself or to make an attempt at escape. The sea decided it for me; for, as the last rope gave away, the steamer lurched to starboard, my hands were wrenched loose, and I fell toward the deck.

As I fell, the half-wrecked boat went over the side into the ocean. The two men had sprung to the rail to see that it cleared properly. I struck the deck on my feet, within half a dozen yards of them.

There was a large coil of rope near by, and I was able to dash behind it. In the darkness they did not see me, and the roaring of the sea and wind prevented them hearing me.

"You'll have to submit to a search, sir," I heard Captain Hawson tell my uncle.

I heard my uncle laugh in reply, and after a time the captain's voice again:

"Very good. You are at liberty to come and go as you please, so long as you do not attempt any tricks. If you do that I'll be obliged to confine you in your cabin, of course."

"I have had no dinner," Uncle Dick reminded him.

"I beg your pardon. You shall be served immediately."

He called one of the crew and gave him orders. Uncle Dick and the men walked down the deck, within half a dozen feet of me. Then they disappeared below.

I took stock of my predicament. I wanted to let Uncle Dick know that I was aboard, and how I came to be there, yet I did not wish to be discovered by the crew. I remained behind the coil of rope for fully half an hour before making a move.

The sea was comparatively calm, and I had grown used to the rolling of the steamer. I crept from my place of concealment, and made my way cautiously along the deck, keeping away from the lights.

At a cabin door I heard voices and hurried by. Once a sailor hurried by me, and I crouched against the cabin, my heart pounding at my ribs.

I was afraid to attempt to go below, for there were lights everywhere, and there was the danger of running into some one coming up. So I went on toward the stern.

I found no way there of getting below, and dared not go too close to the man at the wheel. I returned, and stood just outside the circle of light, peering down, wondering how I was to get to my uncle without any one seeing me.

While I stood there Captain Hawson came from forward and went below. He entered the first cabin to the right.

I waited a moment, then followed him, slipping down as quickly as possible. I heard voices in the first cabin, among them those of Captain Hawson and Uncle Dick. There were footsteps upon the deck. Some one was coming down.

There was no time to lose, no time in which to plan. Without hesitation I stepped to the first door on the left, grasped the knob, felt it turn and the door open, and the next instant was inside the dark cabin, with the door closed. I was just in time, for the steps outside told me one of the crew had come below to see the skipper.

I gasped for breath, and turned from the door. There was no light in the cabin except that which filtered in under the door. The porthole was closed, and I started to walk across toward it. Before I reached it I stopped, and my heart stood still.

"Who is there?" a voice had asked.

I did not reply. The voice came to me again.

"Who is there? Speak instantly or I'll fire at you!"

It was a woman's voice, but there was the ring of determination in it, which told me she did not speak without true meaning.

I threw myself upon the floor.

"Don't fire! For God's sake don't fire!" I gasped.

"Who are you?"

The words came from across the cabin, where I judged the bunk to be. I heard the swish of her skirts as she moved. Then a match flared up, was touched to a candle, and the light shaded. I sat up on the floor.

"A boy!" I heard her gasp in surprise.

"Don't shoot!" I implored.

She held a revolver in one hand, the candle in the other, as she moved toward me, trying to see me better.

"What are you doing here?" she demanded.

"I do not intend to harm you," I answered. "I—I had to come in here. If I hadn't he would have seen me."

"Who would have seen you?"

"One of the men. He was coming below. I was standing outside. I opened the nearest door, to escape him. He did not see me enter."

"Who are you?" she asked.

"My name is Roland Burke."

"What are you doing aboard this ship?"

"I was standing at the dock," I explained. "The men came back, running away from the police, and I was hurled into their boat before I could get away. No one knows I am on this ship. You'll not tell them?"

"I don't understand yet," she said

"Don't you? They had captured a man, and were bringing him to the ship. After we got here I found that the man they captured was my uncle."

"Your uncle?"

"Yes—Richard Engle. He is an explorer. Do you know him?"

For she had given a little cry when I spoke my uncle's name.

"Never mind that," she said. "Why do they want your uncle?"

"I don't know," I replied. "They are going to take him somewhere, so the captain said."

"And no one knows you are on board?"

"No one. You'll not tell them, will you? I want to get to my uncle, of course, and let him know; but I don't want to tell the others. I am afraid."

She put the candle down upon the table, and reached down and helped me to my feet.

"You poor boy," she said.

"Why do you say that?" I asked.

"Do not ask questions now," she replied, and there was a deal of sadness in her voice.

"You didn't tell me your name," I said. "I want to thank you for not telling them I am here."

"My name is Ruth Holland," she replied.

"Do you know why they are treating Uncle Dick so?" I asked.

"Let us not talk about that now," she said. "I think I know, but the story is too long for me to tell you now."

"He isn't in danger, is he?"

"He is in grave danger," she said. "We must help him—you and I. But we must be careful now. They must not know you are on the ship. We'll have to wait, Roland, until we get a chance—"

She ceased whispering, for there were steps outside again, and some one knocked on the door. Miss Holland pulled at my arm, and motioned for me to get beneath the bunk. Then she dropped the bed clothing carelessly, so that I could not be seen

"Who is there?" she called.

"Captain Hawson. I want to enter."

"Come in," she responded.

The door opened, and I heard the captain enter.

"You have been sleeping?" he asked.

"Yes," she said.

"I was afraid the gunfire had alarmed you. There is no need for fear now."

"I did not hear it," she replied.

"The forts tried to stop us," the captain said. "We are away now, and safe. Do you feel like eating dinner?"

"Can you not serve it in here?" she asked. "I'd rather eat alone."

"No one will disturb you if you eat in the other cabin. It would be more convenient."

I heard him step across the cabin.

"What are you going to do?" she asked.

"The bedclothes are falling on the floor"

"I'll arrange them," she said quickly. "Will you serve my dinner in here tonight?"

"As you please," he answered, and went out.

Miss Holland stepped across to the bunk.

"Get against the wall and lie perfectly still, Roland," she instructed me. "I don't think you'll be discovered. I had my dinner brought here, for I knew you must be hungry."

"Thank you," I whispered in reply.

I was famished. I knew it the moment Captain Hawson spoke of dinner, though, in the excitement, I had not realized it before. I lay against the wall, as she had told me, for several minutes. Then I heard the door open again, and some one come in.

"Captain sent dinner, miss," some one said.

"Put it on the table," she replied.

"Shall I wait?"

"Certainly not. I desire to dine alone. I'll put the tray outside when I have finished."

"Very well, miss."

The man withdrew, and for a moment or so I heard no sound. Then Miss Holland cautiously lifted the clothing which hid me.

"Come out, Roland," she said; "but be ready to go to your hiding-place quickly, if any one comes."

That was a good dinner, and I enjoyed it, although there was a scarcity of knives, forks, and spoons. It was no time for etiquette, however.

"I believe you are a good boy, Roland," she said.

"Thank you," I replied. "You are certainly a beautiful young lady."

"Ah, Roland," she said, with a little laugh, "for all the world like your uncle!"

"Then you do know him!" I cried.

Her face flushed rosy red as she turned it away. Her voice caught a little. When she looked back at me again there were traces of tears in her eyes.

"Let us not talk of him now, please," she said. "I know him—yes."

"Every one loves Uncle Dick," I said, not knowing what else to say.

"Does every one?" she said, trying to laugh again. But there was no laughter in her heart, and the poor semblance of it that came from her lips lacked merriment or joy, or even pleasure.

"Don't you?" I demanded.

"Roland," she said, "let us not talk of him now, please."

"I beg your pardon," I replied.

We had finished eating, and I began to wonder whether I was always to be a prisoner in the cabin. Miss Holland sat with her elbows upon the table, her pretty chin resting in her hands, thinking. She seemed to have forgotten my presence.

She was not any larger than I, but was much older, of course. Her hair was as black as night, her cheeks red, her eyes flashing. Her neck and arms were as white as marble, and her lips perfect.

She was very beautiful to look at, and I wondered whether Uncle Dick had ever loved her, and where he had met her, and how, and why it was that she didn't want to talk about him. I knew ever so many girls back home who raved over Uncle Dick, and talked about him every chance they got. But Miss Holland seemed different, somehow.

Just as I got through wondering this there were steps outside again. I got beneath the bunk quickly, and she dropped the clothes so that I was completely hidden.

Some one knocked at the door, and Miss Holland told him to enter.

"You have finished eating?" asked Captain Hawson's voice.

"There is nothing else you would like?"

"Nothing, thank you."

"There is another passenger aboard," the captain said. "He is going to your destination, too. Perhaps you'd like to talk with him. May I bring him in?"

"Who is the gentleman?"

"Mr. Richard Engle," the captain replied, and chuckled.

I heard Miss Holland rise to her feet and move back toward the bunk. She hesitated a moment before replying.

"I'll gladly welcome Mr. Engle," she said finally.

The captain stepped out of the room, and Miss Holland stooped and whispered to me.

"Roland," she said, "this interview will pain me more than you can dream. I'm doing it for your sake. It is a chance to let your uncle know you are aboard the Faraway."

Before I could reply the door opened again, and my uncle entered with the captain. I peered from behind the bedclothing to see what took place.

"Miss Holland, this is Mr. Engle," the captain said.

"Mr. Engle and I have met before," Miss Holland said, in a peculiar tone.

My uncle's face had gone white as he looked at her. He staggered against the wall of the cabin. His voice was hard and cold when he spoke.

"Captain Hawson," he said, "I'll not ask you again to tell me this ship's destination. Now, that I see Miss Holland here, I fully understand."

CHAPTER IV.

A Gentleman's Duty.

HE bowed in cold courtesy and started to back out the door. I heard Miss Holland gasp, heard her take a step forward, and there was sadness in her voice when she spoke.

"Mr. Engle," she said, "I would like a few words with you in private."

"Is an interview necessary?" my uncle asked.

"Must I beg you to grant me one?" she said.

Uncle Dick stepped back into the cabin.

"I trust that I have not forgotten how to act toward a lady," he said. "Will you leave us alone, Captain Hawson?"

"With the greatest pleasure," the captain replied. "It seems you two people are not exactly cordial toward each other. It were better for you to be good friends. You are to make a long journey together."

Then he went out and closed the door.

"Well, Miss Holland?" my uncle asked, turning toward her.

"What I have to say must not be overheard," she whispered. "Do not think I requested this interview for my own sake. I have news for you—something you should know."

"Well?" My uncle's voice was still cold and hard.

"I wish you wouldn't use that tone toward me," Miss Holland said. "Some day you will learn— But never mind that now. What I have to say to you is this—your nephew, Roland Burke, is aboard this steamer."

"Roland!" my uncle exclaimed. "What do you mean?"

"Hush—they may overhear us! He came into this cabin. I am hiding him."

"I don't understand. You don't mean—you can't mean that even my relatives are not safe from—"

"His presence here is an accident," she interrupted.

Then she told him the story as I had told her.

"Where is he?" Uncle Dick asked.

Miss Holland raised the bed-clothing, and I crawled from beneath the bunk. Uncle Dick hurried across the cabin and took me in his arms.

"My poor boy," he said.

"Why?" I demanded.

"You have no knowledge—thank Heaven—of what is in store for you."

"What does it all mean?" I asked.

"Do not question now," he answered. "We must keep you concealed, if possible."

"He may remain in here," Miss Holland offered.

"But there is a chance he will be discovered. Would it not be better for him to hide in my cabin? Then, if discovery comes, I can at least be present to fight for him."

"Are you afraid to leave the boy with me?" Miss Holland asked.

For a moment they looked each other straight in the eyes.

"It isn't that," my uncle said, after a time. "What are we to do? The captain may return soon."

"You'll never be able to get him to your cabin without being seen," she said.

"Yet it must be done some way."

"Leave him here until there is a good chance," she said.

"I'll come for him at the first opportunity," my uncle replied. "Let us hope his presence aboard will not be discovered. And yet—even so—there seems no chance for escape."

"There is always a chance," Miss Holland replied.

I stepped between them.

"What does it all mean?" I demanded. "What is this danger of which you hint?"

"You are to know nothing at present," my uncle said. "These fanatics—"

He stopped, for Miss Holland had raised a hand in warning

"If ill befalls this boy, it is your work," my uncle said to her.

"It is not my work," she said.

Uncle Dick laughed cruelly.

"Do you think I do not understand?" he asked. "Why talk of it at all? We understand each other."

"There is a great deal you'll understand some day," she told him.

Again that peculiar look flashed between them, a look of mingled anger and defiance. The thing was getting on my nerves. I was in the dark, seemingly in danger, though I knew not of what, facing a secret understanding or misunderstanding between these two in which I played no part.

I started as though to speak, when there came a knock at the door. It was the work of a second to get beneath the bunk again, and for Miss Holland to drop the blankets before me. Captain Hawson entered the cabin.

"Just thought I'd run in and see if you'd killed each other," he said. "You two had better make up and be friends."

"Captain Hawson," my uncle replied, "you'll be kind enough to attend strictly to your own business."

"Don't get nasty about it," the cap-

tain warned. "My men used you roughly, I'll admit, but it was necessary. You'll have no complaint to make during your voyage. Just try to be comfortable."

My uncle laughed again. "They always give a condemned man all he wants to eat," he said.

"You seem to know what is ahead of you," the captain said.

"Seem to know!" Uncle Dick cried. "Do you think I do not? Do you think I do not understand the language of your crew—do not know from where they hail? Do I not see this lady—here?"

"Mr. Engle!" Ruth Holland cried

Captain Hawson threw up his hands in despair.

"Stop it!" he exclaimed. "I'll not have any fights aboard my ship. The crew does enough of that, without the passengers beginning it."

My uncle backed to the door.

"With your permission, Miss Holland, I'll retire to my own cabin," he said. "I'll see you again in the morning."

"Very well, Mr. Engle," she replied.

Captain Hawson laughed and followed my uncle out of the cabin. They had been gone for several minutes before Miss Holland spoke to me. Then she sat down on the edge of the bunk and lifted the blankets, and I crawled out and sat on the cabin floor before her.

"What is it all about?" I asked.

"I can tell you nothing," she said. "You'll know all in time. Here is a revolver you may have, to use if it is necessary. I have another."

I slipped the weapon in my pocket.

"You know how to use it?" she asked.

"Very well," I answered. "Uncle Dick taught me. He is a good shot!"

"Yes—he is a good shot," she said.

"You have seen him shoot?"

"Let us not speak of it now," she said, and her face clouded again.

I heard the ship's bell strike then, and she bade me get beneath the bunk again, as though she expected some one to enter the cabin. Indeed, I was no more than hidden when the door opened and half a dozen of the crew entered. They did not speak, but ranged themselves against the cabin walls, holding their caps in their hands and looking at Miss Holland as men look at a goddess.

Presently one of them began speaking in that peculiar foreign tongue, and at intervals the others answered him. Then the spokesman took from beneath his jacket a small idol, and placed it upon the table. They bowed before it, and went back against the wall again.

Then the spokesman began in halting English.

"Most exalted one," he said, "it is again the hour, and we ask your answer."

"My answer is still, No!" Miss Holland replied.

"You have considered well?"

"It is a matter that needs no consideration," she replied.

"Great honor is preferable to death."

"Not always," she answered. "Sometimes death is preferable to what some men call great honor."

"We will visit you again at the hour. We express the hope that you shall have changed your mind."

"I shall never change my mind," she said.

They left her, but she remained standing before the table, looking down at where the small idol had rested. Several minutes passed, and the door opened again.

It was a stranger who entered, a man who was either American or English—who seemed apart from the others.

"You!" Miss Holland exclaimed.

"Does it surprise you?" he asked.

"I knew you had something to do with it, but I did not think you had courage enough to be aboard yourself."

"Perhaps I am not lacking in courage," he said. "Does my presence annoy you?"

"It does," she said frankly.

"Why should it?" he demanded. "It would be better, don't you think, to treat me with courtesy?"

He had stepped to the table, and stood just across from her. I saw his hand go out toward her, try to clutch at hers. She stepped back against the bunk.

"It is time to have done with nonsense," he said, following her. "Why do you hold out against me as you do? Can't you realize that you are helpless?"

"There is always a chance," she said.

"Not when Frederic Welch engineers the job!"

"You have made mistakes before," she reminded him.

"But not this time," Welch said.

"Will you kindly leave my cabin?"

"When it pleases me."

"I ask you to leave the cabin," she said.

"And suppose I refuse to go?"

"I'll call for help!"

"No man aboard this ship would raise a hand to help you if I bade him otherwise!"

"Leave my cabin," she said again; "for you are here only to insult me!"

"I have offered you no harm."

"Your very presence insults me," she said. "Will you go?"

"Suppose I refuse?" he said, laughing at her.

I heard her breath coming in quick gasps. Like a flash, I had sprung from beneath the bunk and confronted him. It was a foolish thing to do under the circumstances, but I had been reared carefully, and knew a gentleman's part; and this man was of my own race, not a foreigner whose manner and method I could not understand.

He reeled against the wall as he saw me, astonished beyond speech.

"Mr. Welch," I cried, "a gentleman always does as a lady requests!"

I stood there before him, my hands clenched, my teeth shut tightly.

He laughed. "A gentleman!" he sneered. "What do you know about gentlemen, you young cur!"

As he spoke he struck me across the face with the flat of his hand. Miss Holland gave a little scream and reeled against the table.

The revolver Miss Holland had given me was in my hand. I struck out with all my strength, and the butt of the gun crashed against his temple before he realized what I intended to do. He reeled, then crashed to the floor like a senseless being.

"Roland! Roland!" Miss Holland was crying.

"Do not be frightened," I told her.

Welch staggered to his feet, his face purple with rage.

"You young cur!" he screamed.

I saw his fist uplifted, saw him start across the cabin toward me. There was no defense I could make, except to shoot, and I did not want to take a human life. Yet I was determined not to submit tamely to an assault, and so raised the revolver.

"Don't shoot him, Roland!" Miss Holland was crying.

He did not seem to see the weapon I held, but sprang on toward me. My finger touched the trigger. Then the cabin-door was hurled open, and some one threw himself into the room and upon Welch's back.

In an instant Welch was hurled the length of the cabin, to crash against the porthole. There he stopped, his eyes blazing back at Uncle Dick, Miss Holland standing between them, I resting against the bunk.

"A man who insults women and attacks boys is a fitting person to be mixed up in this business!" my uncle cried.

(To be continued.)

SPECIAL CARS FOR AUTOS AND FISH.

FIFTY auto railway cars, something entirely new in railroad-car construction, have just been turned out by the Milwaukee road at its shops in Milwaukee.

These cars, substantially built and ornate in appearance, each forty-one feet in length, are intended solely for the transportation of automobiles, which has come to be a large item in the transportation business.

The special "Milwaukee" cars for this class of shipment are designed with a view of carrying complete automobiles without the least twisting or cramping. Large, double doors are located on each side, at the opposite ends, so that the machines may be easily loaded and unloaded

Another new style of car now being built by the Milwaukee road at its shops is a special refrigerator car for the Pacific coast fish-trade. These cars are about the size of the regular baggage-car; are of the passenger-train style and finish, carrying the Milwaukee road's regular color, and are supplied with a complete refrigeration plant.

Observations of a Country Station-Agent.

BY J. E. SMITH.

No. 18.—Billy M. Has a Merry Time Trying to Make the Rubes Fall for a New Blue Uniform with Gold Braid and Brass Buttons.

BACK in the mulligatawny age, say two or three million years ago—or, to put it more definitely, the post-tertiary period of the mammalian age—the only apparel covering the *genus homo* was coarse, unkempt hair.

I got this from Darwin the scientist, or from Dooley the philosopher, or from Professor Doodlespeck of Petroleum University, Illinois, but I don't remember which. This is a mean and unworthy reflection for a proud man to indulge in; but whenever I look upon a Pullman conductor in his new spring uniform, it comes to me in that way.

Now, from the bristling, nucleated epidermis of the tree-man to the fine blue-and-gold braid of a parlor-car man is a long way. Yet, many of us were here when the blue and the gold braid appeared among us, and we have witnessed within easy memory this last phase of evolution to the point of spotless elegance.

Evolution Is at Work.

The matter is placed before the reader in this way to remind him that, even in railroading, the forces of evolution are at work, and that changes and improvements are constantly taking place.

There was a time in railroading—not more than one generation ago—when there were no blue uniforms, no gold buttons, no badges.

The pioneer conductor and brakeman appeared in bobtail coats, wide-buttoned checkered pantaloons, and derby or slouch hats. They had on them no distinguishing marks. They could only be told from the passengers by acquaintance, or by evidences of authority.

The conductor careened up and down the aisle of the coaches, and collected cash fares without regard to Interstate Commerce laws or State Commission rules. He was not even annoyed with a duplex cash-fare receipt. He just took the money and put it into a deep pocket and passed on to the next passenger. Simple arrangement, wasn't it?

Knew the Con Personally.

People did not care whether they bought tickets or paid the conductor. There was no penalty. They often knew the conductor personally, and the fellow sympathy and human touch naturally led to the cash fare.

But the first conductor that ran the first train and collected the first fare had a wag for a passenger. The wag handed the conductor a piece of silver. The conductor gave it critical scrutiny. It had an unknown head on one side and a strange tail on the other. It was Mexican, Canadian, or Egyptian—the puzzled conductor did not know which.

"Here," he said to the passenger, "I can't use this."

"Then give it to the company," replied the wag.

A very clever retort, was it not?

This first conductor then passed on to the second passenger. The second passenger was not a wag, but was nosey and curious. He paid a cash fare, and the conductor thrust it down deep into his trousers.

"Say," said the passenger. "How can you tell what's your money and what's the company's?"

"Very easy," replied the conductor, who was a nifty proposition, and afterward owned the road. "When I get through, I toss all the money to the top of the car. All that sticks to the bell-cord belongs to the company. What comes down is mine."

Just then the train whistled for Herkimer. The brakeman twisted the brakes, and more cash fares came aboard.

George Stephenson, who invented the road, and B. F. Morse, who later added certain improvements, were occupying the next seat together, and laughed heartily at these jokes, which are officially labeled No. 1 and No. 2.

"By heck!" exclaimed Morse. "People air a going to say a mighty lot of funny things about conductors and cash fares."

They have, they do, and they will. No. 1 and No. 2, vinted in 1827, have not been improved upon, and are now recognized as standard by all railroad organizations.

When a passenger wants to be pleasant with the conductor, he tells one or both. The best plan is to tell No. 1 going down, and save No. 2 for the return trip. That shows versatility. When a conductor does not enthuse over either of them, ask him bluntly when he expects to have enough to quit railroading.

If that does not bring a sickly, half-hearted smile, tell him about the conductor you know who worked ten years and saved enough from his salary of one hundred per to buy a section of Illinois. That may arouse interest. At least, it will show that you are wise to the game.

Joke No. 3 on the conductor was perpetrated fifty years later by the railroad itself, when they equipped him with a cash-fare receipt, which enables the passenger to know all the particulars, and preserves the identical memorandum for the road's accounting department.

"ALL THAT STICKS TO THE BELL-CORD BELONGS TO THE COMPANY."

Joke No. 3 is intended to head off jokes 1 and 2, just as one train-order often annuls another of previous number.

Along about the same time it occurred

to some one in authority that the plain-citizen's attire had certain disadvantages, as any rogue could impersonate a conductor and beat him to a cash fare. Passengers often found it difficult to pick him out when wanting information. The first thought was to tag him with a badge. Then they had him wear a cap, and finally he appeared in the military splendor of a blue uniform, brass-buttoned and gold braided.

The Foolish Question.

The conductor has always remained true to his colors. No matter how stifling, oppressive, or sweltering the day, he moves down the aisle, panting and perspiring, with every stitch of his regalia hung upon him.

The panting passenger throws off his coat and bares his neck to any welcome breeze that comes in at the window. The conductor is permitted to unbutton his vest, but beyond that he violates the proprieties. He takes his fully togged, at 99 Fahrenheit. There is no better subject in all this broad expanse to hail with that jocular query, "Is it hot enough for you?"

That's a torrid-season joke on the conductor. Official label, No. 4.

Some roads go even farther and uniform their station employees.

Billy's Glad Rags.

Billy M. was agent at K. when the B. and B. road issued a "glad rag" ultimatum to all its agents, ticket-sellers, and station baggagemen.

"I had to do it," said Billy, "or quit. I didn't want to wear a blue uniform and cap. In a small town, everybody looks you over and makes remarks. I knew when I went up street I would create a sensation. Of course, I could have kept a citizen's coat, vest, and hat at the station, and changed when I sallied forth among the ribald population, but that's too much trouble.

"Two days after I received the outfit, I boldly walked up to the post-office in full official regalia. I was hailed with loud acclaim. Small boys ran along behind me, and tradespeople came to their doors to look me over. They called me 'major,' and piped off the outfit with all the ready wit a village commands.

"I comported myself with dignity. After all, there is something stiffening in blue clothes and gold trimmings. They lend to poise, decorum, and circumspection. They drew attention to me, and I unconsciously stepped higher and breathed deeper. I returned to the depot feeling I was no longer unnoticed and unsung.

"During the day I handled some mailbags, hustled some baggage, trucked in a lot of green hides and a number of tubs of ancient butter, together with a general assortment of merchandise in barrels, boxes, and bags.

Decorum and Other Lugs.

"I solved the problem of an agent's uniform in this way. In addressing the public over the counter or through the window, a neat uniform and spick and span appearance add to his prestige; but from lugging the dead calf from the scales to the trucks, common jerkies have all other outfits beaten a mile.

"A day or so after I had been wearing my blue uniform," Billy continued, "I went out to the platform and struck a posing attitude that all might see. An old G. A. R. man hobbled up, gave me a look, and saluted. I saluted in return.

"'You fellows had it easy,' said he.

"'Deuce we have,' I said warmly. 'What do you know about our work?'

"'Me know!' bristled the old man with a shriek. 'Wasn't I with Phil Sheridan all through it? Wasn't I in the battle of Chickamauga—huh? Wasn't I at Missionary Ridge—huh? Wasn't I right to the front in the Wilderness, and at Yellow Tavern, and Hawes' Shop, and Cold Harbor? What did that little skirmish of yourn at San June amount to? We had worse'an that every morning before breakfast. We wouldn't give a scrap like that a name. Makes me tired—'

"Me! A Cheap Soldier!"

"'Hold on!' said I. 'I'm no rough-rider—'

"'Ain't you a Spanish-American?'

"'No!' I yelled. 'I'm the railroad

station-agent. This is my new uniform.'

"'Durn my buttons,' half-apologized the veteran; 'but the way you was stand'n' there, all perked up, made me think you was one of them Sunday-school picnickers back from Cubay. It just kind a riles me to see 'em posin' around. Honest it does, mister. I beg your pardon. I do, sure!'

"It didn't stop there altogether," continued Billy. "A bright new uniform is a shining mark. There is an eccentric old farmer who occasionally walks to town and passes the depot in doing so. He is somewhat near-sighted, and he took notice. He stopped and shook hands with me.

"'Where are you located, captain?' he asked.

"'Right here,' I said.

"'How is your good work coming on?'

"'Very well, indeed,' I replied.

"'You people do lots of good,' he said warmly. 'How long will you be stationed here?'

"'Until I'm ordered elsewhere.'

TELL HIM ABOUT THE CONDUCTOR WHO WORKED TEN YEARS AND SAVED ENOUGH FROM HIS SALARY TO BUY A SECTION OF ILLINOIS.

Now a Salvationist!

"'Regular military discipline,' he chuckled. 'Couldn't be conducted on any other plan. What a genius General Booth is! What an organizer!'

"The old gentleman fumbled in his pocket, then thrust forth his hand with a sudden impulse. I gave him a good-by hand-clasp. I thought it was that. But it was more. In my palm there was left a shining silver dollar.

"'Hold on,' said I in amazement. 'Haven't you made a mistake?'

"'Not a word. Not a word,' he replied with a sort of eager happiness. 'It's a dollar. I know it's a dollar. I am happy to give it, sir. I know it will be wisely spent. I donate a dollar, sometimes two, every year.'

"A man can have different varieties of amazement. Maybe you don't know that. Mine was the rooted, tongue-cleaving kind. I actually stood there and let that old man move off, and found myself clutching that shining buck as if it was the last one that would ever come my way.

"The next day a timid-looking boy came to the depot with a large bundle.

"'Grandpa sent this up,' he said.

"'Where does it go?' I asked.

Doing Some Good.

"'Dunno; just said give it to the man in the uniform and he'd understand.'

"It was a bundle of old clothing—grandpa's second contribution.

"Now, I suppose I should have sent both the bundle and the dollar back to the old man, with the proper explanation. I have a strong but phlegmatic conscience. I delayed. But at last I sent the money and the clothes to the captain of the Salvation Army at the nearest city. I signed, 'From a friend.'

"On the Great Record grandpap will get credit for that. I prepaid the express on the outfit—thirty cents. That much was out of my own pocket. That means one small mark for me.

"A day or so after this incident I again sauntered out on the platform in full regimentals and drew myself up in a sort of magnificent fulness, so satisfying to the man in striking attire, when a wild eyed, hatless young man rushed upon me and grasped me by the arm.

"'Come on, quick! I want you!' he bellowed. 'Hurry, before they get away! We'll get all three of 'em! The dirty dogs!'

"I don't understand the witless impulse that sent me along with that fellow. But I went with him on a trot. He was in a ranting frenzy. He brought me up in front of a saloon, half a block away.

"'Arrest all of 'em!' he shouted. 'They kicked me out! Git 'em! Git 'em!'

"He stood off a little, waving his arms and shouting encouragement, and waited for me to sail in. I hesitated.

"'Are you afraid?' he yelled.

Then, Chief of Police!

"Now, that fellow's brand of hypnotism was only good for thirty seconds, and I came to.

"'What's the row?' I asked innocently.

"'Don't let 'em get away!' he shrieked. 'Get all of 'em. They kicked me out!'

"'I don't see why I should have anything to do with it,' I began to protest.

"'What! Ain't you the chief of police?' he roared.

"I admitted that I was not. I was

"THEY CALLED ME 'MAJOR,' AND PIPED OFF THE OUTFIT WITH READY WIT."

only the station-agent of the B. and B. Railroad, in my new uniform.

"'Where is the police?' he cried.

"'There's only a town marshal,' I replied guiltlessly. 'You will find him on the vacant lot behind the blacksmith lot, pitching horse-shoes.'

"That's what a new uniform does for a man," continued Billy. "In one week I was a Spanish-American soldier, a captain of the Salvation Army, and the chief of police. Why don't they dress us different?

"When I become general manager, they'll all wear bright yellow with black stripes. There'll be nothing else like it under the sun. The instant you lay your eyes on one of 'em, you'll know what he is, and you'll never think he's anything else. Watch out for 'em!

"Another thing," continued Billy. "There's no style to the make-up. There is no proportion or fitness. Only one kind of cap—flaring at the top like the old hay-burner stacks.

"I DON'T UNDERSTAND THE WITLESS IMPULSE THAT SENT ME ALONG WITH THAT FELLOW."

The Dinky Cap.

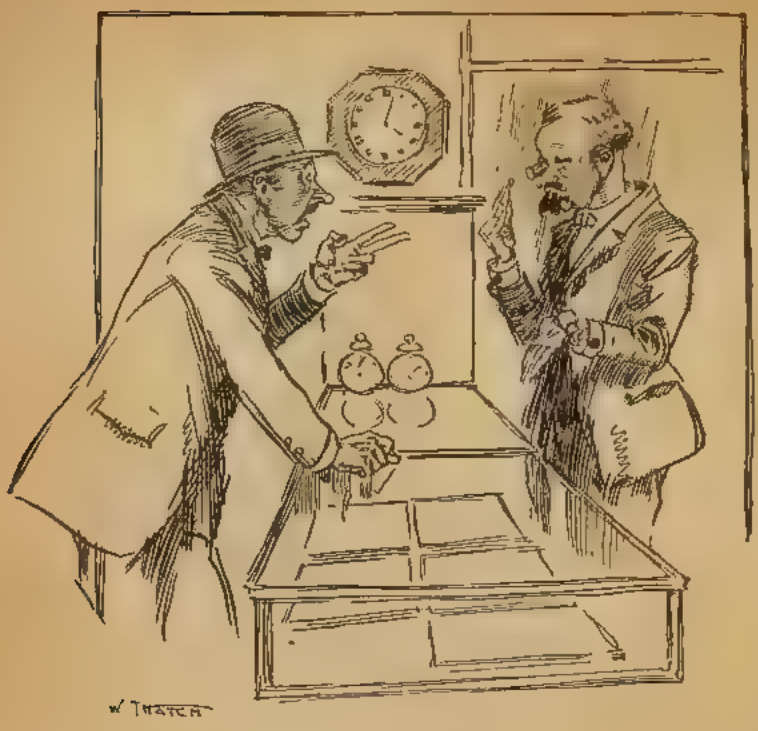
"Take a skinny man with no chin or cheeks, and how does he look in one of them? I leave it to you—can there be anything worse? Over on the B. and C. road they have the flat-crown dinky cap. They have a few fellows over there that run out on corn and alfalfa, and measure eighteen inches from jowl to jowl, and they actually place dinky caps on those mounds! That's landscape gardening for you! What we want in uniforms is proportion, and we'll take duck for summer-time—light weight and light color.

"Occasionally you find a physical make-up that fits into the standard uniform at every angle. Do you know Thomas A. Muggs, that runs our through run into Chicago? He's one of 'em.

"When Thomas A. rigs out for his run, there's three of them—Lord Chesterfield, Beau Brummel, and Thomas A. Muggs. Thomas is fifty, and a bachelor. He never talks; just takes it all out in dignified pose and courtly demeanor. His fad is spotless linen and precious stones. He invests all his surplus in gems, and he wears them—fine ones, too.

"When he comes into a coach and the light falls on him, it is the same as a distant glimpse of the South Side yard on a dark night.

"His occupation is the very best for exploiting the vanity that possesses him. He meets people every day — hundreds



"WE DO NOT HANDLE COUNTERFEITS, SIR! YOU HAVE BEEN IMPOSED ON ELSEWHERE!"

of them. They look at him closely. He flashes back all the Tiffany elegance a good salary permits.

"When he passes a ticket back to a passenger, and the passenger inadvertently diverts an eye for a brief moment to the jeweled finger holding the ticket, Thomas gets thrills that you and I wot not of.

Thomas Gets Thrills.

"Thomas has a sort of cat-and-water horror of one duty—that of rejecting a refractory passenger. It musses him up so. They tell me that when this must be done, Thomas goes to the baggage-car and daintily detaches two or three thousand dollars' worth of ornaments before undertaking the operation.

"Very often, when he returns, the fervor of the belligerent has somewhat cooled, and actual hostility is averted.

"I understand the road thinks well of the plan, and may insist on other conductors equipping themselves with a bunch of Kohinoors.

"The laugh is now on Thomas. I started to tell you the story. Did you ever notice the pair of cuff-buttons he wore for a long time? He paid five hundred dollars for them. Two hundred and fifty dollars each — think of that! They were genuine sapphires, and Thomas prized them very highly.

"One day, not very long ago, when Thomas's train pulled into the station at Chicago, there was something of a jam of hurrying passengers in the vestibule, and Thomas was jostled a little in straightening out the confusion. When the last passenger was out and lost in the swarming multitude beyond the gate, Thomas discovered that one of his cuff-buttons was missing.

"A thorough search of the coaches failed to locate it. Thomas lamented the loss very greatly. Not for the price, but because he was attached to the stone. You and I do not understand that.

"Of course, he quickly inserted an 'ad' in the 'Lost' column of the dailies, describing the button, and offering a suitable reward. He really expected no results; but there was a bare possibility that it might have fallen into honest hands. The unexpected happened. This letter came to him in response:

"KIND SIR:

"I have noticed your advertisement in the *Morning Planet*. In leaving my train in the Union depot a few days ago I picked up a cuff button some one had dropped. I had no opportunity to find an owner. I have it now in my possession. If it is yours, you may call at my apartments, No. — Mohammed Avenue, and recover the same. The stone and button are rather unusual, and I think if you can show its mate no other identification will be required to prove that you are the rightful owner.

Very sincerely,

MRS. V. M. MORISEEN.

"Thomas hastened to the place indicated.

"He was met by a pleasant-faced old lady with snow-white hair.

"'I found a cuff-button,' the lady explained, 'as I was leaving the train at the Union Depot last Thursday afternoon. When I saw your "ad" in the "Lost" column of the *Planet*, I took it you were the rightful owner. I presume you have the mate.'

"Thomas produced the mate from its tissue wrappings and handed it to the lady.

"'I think that is it,' she said, looking it over.

"She unlocked a convenient drawer and took out the other button, and carefully compared them.

"'I think there can be no mistake,' she said, returning them both to Thomas. 'They are quite unusual, but they match in every respect. I suspect they have a pretty fair value.'

"'They cost me five hundred dollars,' blurted Thomas.

"'Indeed!' she exclaimed with mild surprise.

"Thomas wrapped them up carefully and put them safely away. Then, somewhat awkwardly, he fished up a twenty-dollar gold coin. 'It's your reward for returning the lost piece,' he said.

"'Really,' she protested, 'I could not accept anything. One hardly expects a reward for doing right. I cannot possibly—I—I— Still, I might take the coin and turn it over to the mission as a contribution from you, a stranger. The credit to be yours.'

"It was arranged that way.

"It isn't often a lost gem of that value falls into honest hands and is returned to the owner; but now and then there is an honest man or woman even in a great city. Here's a match, Diogenes.

"A month later, Thomas noticed one of the settings was loose, and that the cuff was blacked where the button rubbed. He hastened to the jeweler of whom he had purchased the pair and complained.

"The jeweler gave a quick but critical glance.

"'Diable!' he exclaimed. 'You never bought these of us! They are cheap imitations, both of them! Not worth five dollars a pair! We do not handle counterfeits, sir! You have been imposed on elsewhere! Indeed, you have, sir!'

"Thomas hastened to Mohammed Avenue. The gray-haired lady was not there—had never been there—was entirely unknown. She had never been heard of at the mission, either.

"Didn't she turn a neat one on Thomas? What's the use, Diogenes? Blow it out!"

Blue uniforms, brass buttons, gold braid, diamonds, and sapphires. "All is vanity!" exclaimed Solomon, early in the struggle. "Why not go back to nature?" exclaims Billy of to-day.

At the same time, Billy brushed a little dust off his blue pants, picked some lint off his blue coat, and passed his hand over the badge on his gold-braid cap for a brighter polish.

"Each of these stripes," he said, and, I thought, with a touch of pride, "represent five years of service with the company. Come around again forty years from to-day, and I'll show you ten of 'em."

TRAINS FORBIDDEN TO RUN BACKWARD.

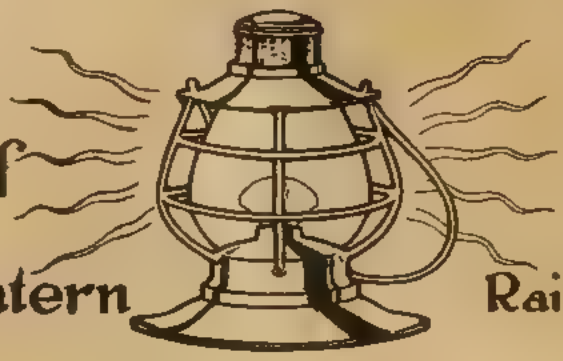
THE Michigan Railroad Commission, recently declared by the Supreme Court to be absolute boss of the railroads in Michigan, has issued an order prohibiting the running of trains backward or with cars ahead of the engine. The various lines were given ninety days to put in Y's and turn-tables, and it is probable that the order will cause trouble because of the expense.

The chief reason is that the engineer does not have a clear view of the track over the pile of coal on the tender. It is supposed that the recent accident at Ottawa Beach was caused by running in this manner. On some roads trains are backed for many miles.

The order also provided that combination passenger and baggage-cars shall not be run with the passenger compartment next to the engine.

WHAT'S THE ANSWER?

By the Light of the Lantern



Questions Answered for Railroad Men

ASK US!

WE like to be as useful to our readers as we can; but, because of the great popularity of this department, we are forced to impose certain restrictions. In future, we shall be compelled to limit its scope to the answering of questions of an informative, technical, or historical nature only.

We receive dozens of queries in regard to the right person to apply to for certain classes of employment. If the writers will pause for a moment to consider, the title of the proper official will readily occur to them, and in any case the information can be obtained by application to the headquarters of the company involved, much more quickly than we can publish it.

If a reader, after following these directions, still finds himself lacking in information, and will write us, giving his full name and postal address, we will try to satisfy him through the mail, but we cannot answer any letter in which it is not made clear that some real difficulty exists.

IS it consistent with good railroading to make a meet order on form "19" to be delivered to the ruling train, and is it a violation of the standard code to make a meet order on form "19" at all?

A. H., Wichita Falls, Texas.

It is not consistent with good railroading to use form "19" as you suggest in first part of your question, on roads where both forms are in use. For the remainder, would say that the standard code gives inferior train "19" order, but superior, or, as you term it, ruling train gets "31" order.

A. H. F., East St. Louis, Illinois.—To obtain position with a surveying party application should be addressed to the chief engineer of the railroad where employment is desired. You should endeavor to learn the road which has new work under way, or in contemplation, as the chances for employment in that contingency would necessarily be brighter

The necessity for experience on the part of the applicant depends largely on the position desired. Refer to March, 1909, number of THE RAILROAD MAN'S MAGAZINE, which contains much valuable information regarding this work.

WHAT are the hand and lamp signals, also the steam-whistle signals?

(b) What is a first-class train, and is it superior to a regular, and how?

(c) Do you know of any good book on railroading?

E. McC., Butte, Montana

The hand and lamp signals are as follows: (1) Swung across track, "stop"; (2) raised and lowered vertically, "proceed"; (3) swung vertically in a circle across the track, when the train is standing, "back";

(4) swung vertically in a circle at arm's length across the track when the train is running, "train has parted"; (5) swung horizontally in a circle, when the train is standing, "apply air-brakes"; (6) held at arm's length above the head, when train is standing, "release air-brakes."

The steam-whistle signals are: (1) One short blast, "stop, apply brakes"; (2) two long blasts, "release brakes"; (3) one long and three short blasts, "flagman go back and protect rear of train"; (4) four long blasts, "flagman return from west or south"; (5) five long blasts, "flagman return from east or north"; (6) three long blasts, when running, "train parted"; (7) two short blasts, answer to any signal not otherwise provided for; (8) three short blasts, when train is standing, "back"; (9) four short blasts, "call for signals"; (10) one long and two short blasts, to call attention of the same or inferior class to signals displayed by a following section. To be answered by two short blasts of the whistle; (11) two long and two short blasts, approaching public grade crossings; (12) one double long blast, approaching stations, junctions, and railroad crossings at grade; (13) two long and two short blasts, to be repeated at intervals, approaching obscure crossings; (14) four short blasts repeated, to be given by engineer on siding, or on double track, to warn a passing train that it is following another train too closely.

(b) Trains of the first-class are superior to those of the second-class; trains of the second-class are superior to those of the third; and so on. Extra trains are inferior to regular trains.

The above is quoting the book of rules, but the exact definition of what comprises a first-class train can only be derived from the time-table; there is not general uniformity in the classification. Ordinarily, all passenger-trains are first-class, but we have in mind one road where only electric trains are so designated; steam passenger-trains, second-class, and scheduled freight-trains, third-class.

(c) There are many books on railroading. If you will send your full name and postal address and state more specifically your needs, we shall be glad to give you a more detailed answer through the mail.

W. H., Milner, Idaho.—We have made previous mention of the Continental code, used in wireless telegraphy, in past issues of this department. See the magazine for August, 1909.

It differs from the Morse code in having no space letters, dashes being employed in lieu of spaces. Simply substitute these for the spaces in the Morse code and you have the information.

G. H., Ogesna, Wisconsin.—There are many occupations in a large roundhouse for men without trades. For instance, flue-cleaners, arch-brick men, pit-cleaners, wipers, fire builders, engine watchers, turntable men, and helpers for machinists and boilermakers, and the other trades.

An inexperienced man would likely be assigned as a helper, or to whatever in the judgment of the foreman or master mechanic he is best fitted for. The position of hostler, which your letter indicates as the one you have in mind, is quite responsible.

Hostlers, as a rule, move engines from the point where the engineers and firemen leave them, until they are finally placed over a pit in the roundhouse. In some instances they take the engines from the roundhouse to the station for other trains, and the regular crew takes them there. This means, of course, moving over, often, several miles of yard tracks, and it is necessary that the hostler pass the eye examination and be fully qualified for the signals.

Such responsible positions pay about $3 per day, and often engineers are used at the regular road rates. Hostlers are generally promoted from hostler helpers, who receive from $1.25 to $1.75 per day. Hostlers not engaged on main line tracks are paid anywhere from $1.75 to $2.50 per day.

WHO invented the Stephenson link which is used in locomotive valve motion, and what is its history?
E. C., Hornell, New York.

We can quote no better authority than Angus Sinclair on this subject. He says: "There is no doubt but that the link was invented by William T. James, of New York, a most ingenious mechanic who also invented the double eccentrics. He experimented a great deal during the period from 1830 to 1840, and while his work proved of no commercial value to him, it is probable that Long, who started the Norris Locomotive Works at Philadelphia, and introduced the double eccentrics, was indebted to James for the idea of a separate eccentric for each motion.

"The credit of inventing the shifting link is due to William Howe, of Newcastle, England. He was a pattern-maker employed by Robert Stephenson & Co., and he invented the link in 1842 in practically its present form.

"Howe's idea was to get out an improved reversing motion. He made a sketch of the

link, which he explained to his employers, who were favorably impressed with his idea and permitted him to make a pattern of it, and afterward gave a trial on a locomotive constructed for the Midland Railway Company. It proved successful the first day.

"Although Stephenson gave Howe the means of applying his invention, Howe failed to perceive its actual value, for it was not patented. Seeing how satisfactorily it worked, Stephenson paid Howe twenty guineas for the device and secured a patent under his own name."

This is how the link comes to be called the "Stephenson Link." The credit for this invention was not extravagantly paid for.

C. E. W., Denver, Colorado.—You no doubt refer to the Oroyo Railroad, which has its terminus at Callao, South America. You might address this railroad at Callao, Peru, and information on the lines you seek would doubtless be forthcoming. Or, again, possibly the Bolivia Railway Company, which has an office at No 35 Nassau Street, New York City, New York, may set you right in the matter.

Don't go there until you find out all about it. If you have back numbers of THE RAILROAD MAN'S MAGAZINE containing this department, read what has been said generally in regard to railroading in the tropics.

L. V. L., Waterloo, Iowa.—The Maryland and Pennsylvania Railroad, from Baltimore to York, Pennsylvania, uses light power. Its equipment consists of eleven locomotives and one hundred and eighty cars. This was formerly a narrow gage line.

We are replying to your question on the premise that you refer to standard gage lines on which relatively light power is used. The master mechanic of the road is George C. Smith; address, Baltimore, Maryland.

The Lehigh and Hudson River Railway has forty-six locomotives and eight hundred and fifty-seven cars. R. T. Jaynes, Warwick, New York, is master mechanic. There are others too numerous for mention in this space, but this will no doubt suffice for your purpose.

J. H. A., Seattle, Washington.—We can give you no better advice than to personally interview the employing officers of the service mentioned in Seattle. They will cheerfully indicate what such positions have in store for a young man, pay, and all other features.

As a rule a railroad clerkship does not open a promising future. It is a much overcrowded business; and, in consequence, the pay averages $45 to $60 per month for ordinary clerkship.

S. M. B., Dawson, Georgia.—The nearest district superintendent of the Pullman company is the officer to be approached on the subject of employment in the line you mention. In your instance this would be Mr. W. M. Camp, Atlanta, Georgia.

F. J. C., Brooklyn, New York.—See reply to a correspondent in September number. If you have a locomotive which will do as much work as any other engine, with less operating cost, you have something good, and need not concern yourself regarding your financial future.

Such schemes as indicated by the general tenor of your letter are, as a rule, wild and visionary. Do not lose sight of the fact that truly great brains in the mechanical world have worked years and years on the problem of transportation and that there can scarcely be a factor bearing thereon which has escaped consideration.

If you will write more in detail concerning your scheme, we will be pleased to review it and return an entirely frank opinion.

E. B. L., Lancaster, Pennsylvania.—Particulars regarding the Pennsylvania Railroad school for telegraphers can be secured from J. B. Fisher, superintendent of telegraph, Broad Street Station, Philadelphia. We do not know the scope of the school, but suppose that it is for the training of men already in the service who desire to fit themselves as operators.

WHAT becomes of the expansion and contraction in a continuously welded street car rail?

L. A. B., St. Louis, Missouri.

In the first place, it is endeavored to weld the rail-joints at as nearly a mean temperature as possible, so as to have as little extreme contraction due to heat or cold. The strain due to contraction is taken care of by the fact that the cross section of the rail is large enough to give sufficient strength to withstand this pull without being strained beyond the elastic limit of the material. This has been proved by tests at the government arsenal, Watertown, Massachusetts.

In the matter of expansion due to increased temperature, it is largely checked by the grip of the pavement in which it is laid,

and most of the track which has been welded in recent years has been bedded in concrete base. Any movement which this grip of the pavement does not hold goes into slight irregularities of line, and we presume the cross-section of rail may be slightly increased. You must remember that as rails are so largely in use in paved streets, only a very small proportion of the surface is exposed to the sun.

T. R., Lebanon, Indiana.—Electricians are carried on the through electric-lighted trains of the principal lines. On trains equipped with axle light their duties are, of course, such care of the various appliances and light repairs to them which they may be able to effect in transit.

The electric-lighted trains of the New York, New Haven and Hartford Railroad have a dynamo in the baggage-car run by steam from the locomotive, and the necessary attention to this dynamo when on the road devolves upon the baggagemaster. The pay of train electricians where such positions are in evidence is approximately $75 per month.

Full information can be secured from the electrical engineer of the railroad which you have in view. If you do not know his name the title will suffice.

J. P., Pleasureville, Kentucky.—Eighteen years is too young for a fireman. We do not know of any locality where your application would receive favorable consideration.

C. S., Los Angeles, California.—Address *Railway and Locomotive Engineering*, New York City, New York, stating the book you want.

C. J. B., Dubois, Pennsylvania.—Any of the Western railroads offer good inducements for boilermakers. The Santa Fe was, and probably is still, paying forty-two and one-half cents an hour west of Albuquerque. Living is no higher than in the East for a man of temperate habits.

IN what year did Westinghouse invent the "ET" air-brake?

(2) Can you apply the emergency more than once with the "ET" brake?

(3) On what notch do you release the brake on the train-line on the engineer's brake valve?

J. G. C., Boston, Massachusetts.

(1) In the early days of railroading practically no attention was paid to the necessity for braking power on the engine and tender on account of the service conditions prevailing, and fear of flattening and slipping the driving-wheel tires. A little later straight air-brakes, similar to those under the cars, were applied to tenders; then, the driver brake was added, and later, as it became necessary to utilize every possible means for obtaining braking power, the truck brake, thus forming the complete brake installation

Later, the development of the high-speed brake equipment led also to the addition of the high-speed devices to the locomotive equipment. When further improvements became necessary, the undesirability of adding further to the existing equipment became apparent, and it was resolved to depart from the previous lines along which improvements had been made, and to design outright an equipment which would combine the functions of several pieces of apparatus and include the features required of a brake which should meet the requirement arising from present-day conditions, this equipment to cover all kinds of service and classes and weights of locomotives.

The brake known as the "ET," which, of course, means "Engine and Tender," includes all of the advantageous features which have been worked into previous equipments, eliminates many of the undesirable features inseparable from former types, and provides many additional operative features which have long been desired but hitherto unobtainable with other types of equipment.

The first "ET" equipment was put in service June, 1903, but you will, of course, understand that this was more or less an experiment at that time, and since then the "ET" has been modified and improved in a number of particulars, the present standard being the No. 6 "ET" equipment, which has been in service for about three years.

(2) After the brake-cylinder pressure has been entirely released from emergency application the brakes can be reapplied in an emergency immediately, and full pressure obtained. This operation can be repeated indefinitely. It is presumed you understand that this refers to the locomotive brakes only, as on the car brakes the results of such an operation would depend entirely upon the type of triple valve employed.

(3) The notch employed to release the locomotive brake using the automatic brake-valve of the "ET" equipment is the running position notch, as the locomotive brake is automatically held applied in all positions of the automatic brake-valve handle except running position.

(4) The reputation of the school you men-

tion is well established, but better information than we give can best be secured by direct correspondence with its management.

A. B. R., McKeesport, Pennsylvania.—Note reply to E. B. L. above. The majority of roads hire their operators, or, possibly, make them from students which some operators are allowed to take in their offices. We have frequently outlined in this department the necessary procedure.

J. H. K., Terre Haute, Indiana.—The St. Louis, Iron Mountain and Southern is now in the Missouri Pacific system. Address A. W. Sullivan, general manager, St. Louis, Missouri, in regard to chief train despatcher.

The eye test is sufficient, as well as proficiency in his work, for the requirements of an operator. The pay is from $15 to $25 per week.

Don't believe derogatory stories which you may hear of any road until you have personally investigated the conditions. We never heard any such assertion made concerning this road.

B. N. M., Wooster, Ohio.—The information required can best be derived from direct correspondence with the heads of the signal department of road mentioned. We might refer you to Mr. W. P. Allen, inspector of signals, Philadelphia, Pennsylvania.

M. B., Spartanburg, South Carolina.—You are entirely too young to be considered for the position of brakeman or flagman on any railroad.

WHAT is horse-power as applied to a locomotive, and how is it determined?

G. A. J., Baltimore, Maryland.

The term horse-power was first established by James Watt, who ascertained that a strong London draft-horse was capable of doing work for a short interval of time equal to lifting 33,000 pounds one foot high in one minute. This value was used by Watt in expressing the power of his engines, and has since been universally adopted in mechanics.

The expression "foot pounds" is used to denote the unit of work, and is the force required to lift a weight of one pound through a space of one foot. Horse-power is the measure of the rate at which work is performed and is equal to 33,000 pounds lifted one foot in one minute, or one pound lifted 550 feet in one second; therefore, one horse-power equals 550 foot pounds per second.

The general formula for ascertaining the horse-power of a locomotive is as follows:

$$\frac{PxLxAxN}{33{,}000} = H.P.$$

in which:

P Means effective pressure in pounds per square inch.
L Length of stroke in feet.
A Area of piston in square inches.
N Number of strokes (four times the number of revolutions) per minute.
H.P. Indicated horse-power.

The tractive power of a locomotive multiplied by the speed in miles per hour, divided by 375, gives horse-power.

E. H. U., Brooklyn, New York.—Opportunities for the technically trained man are exceptional in railroad service, but it must be with the understanding and willing acquiescence to start in the subordinate grades. The position of mechanical engineer on a large railroad is of the utmost importance, as has before been mentioned in this department.

As you are a student of mechanical engineering, and, presumably, have not yet graduated, would suggest that pending the completion of your course you get in touch with the mechanical engineers of various roads through the medium of correspondence. Express a wish to enter their test department, which comprises work of the most interesting character, and, furthermore, exactly along the lines of study which you have pursued.

This work will familiarize you thoroughly with the strength of material, etc., entering in locomotive and car work, and will present opportunity to participate in the various train tonnage and other tests, the data in connection with which can only be secured by experts. The way to preferment is fairly easy after once having become identified with that department as an inspector.

L. C. C., Northampton, Massachusetts—(1) The Pocket-List of Railroad Officials is published quarterly by the Railway Equipment and Publication Company, 24 Park Place, New York City, New York.

(2) The Newport and Wickford Railroad is separate from any other system. It has three miles of track, four feet eight and one-half inch gage, one locomotive, and two

cars Mr. A. D. MacLeod is superintendent. Address Newport, Rhode Island.

(3) The old Martha's Vineyard Railway is now an electric line, steam having been discontinued several years ago. We do not know what became of the one steam locomotive which formerly ran there. The last engineer is now employed by the New York, New Haven and Hartford Railroad at Boston, Massachusetts.

E. J. L., Kansas City, Missouri.—We think nineteen years is too young for favorable consideration as Pullman conductor. Call on Mr. F. A. Cooke, district superintendent of that company at Kansas City, and he will straighten you out.

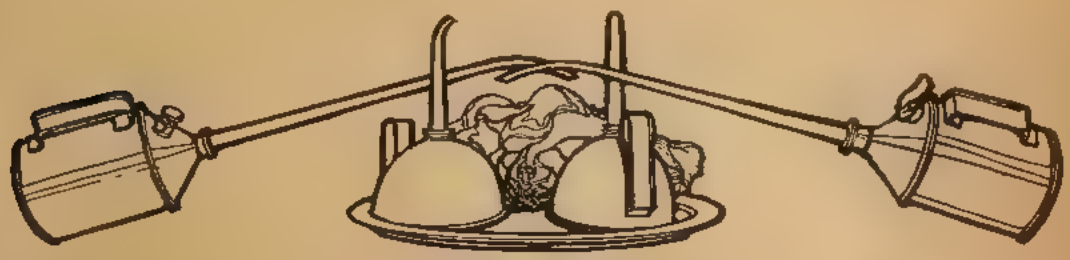
C. H. L., Princeton, Kentucky.—Yes, to all your questions.

H. A. B., Pocatello, Idaho.—To express an opinion on the merits of one automatic switch over another would be to touch on a matter which properly belongs to the advertising department. The device you mention is extensively advertised in trade papers, and you can readily obtain all information desired from the manufacturers' literature printed for circulation.

S. B. L., San Francisco, California.—As you are now residing in the heart of that section you should be able to ascertain the demand for firemen on California roads much more readily than we could.

E. P., Chicago, Illinois.—Your age is just right for a fireman, and your previous experience as stationary boiler fireman would no doubt help your application. Read the "Making of an Engineer" in the August, 1907, number of THE RAILROAD MAN'S MAGAZINE.

F. W., New Haven, Connecticut.—You are entirely too young to receive any considerations from railroad employing officials, except that they might consider you as messenger if a vacancy existed.



A NEW "WASTE" FOR OILING WHEELS.

Samuel A. Flower, After Learning that 180,000,000 Pounds of Cotton Waste Are Consumed Yearly, Invents a New Product.

SAMUEL A. FLOWER was called the "man who watched the wheels go round." A large majority of the turning wheels, at least all of those of the railroad-cars, rest on half bearings, and the lubricating oil is applied to them by putting into the box below a mass of waste soaked in oil. The waste acts as a wick and, drawing the oil up, presses it against the axle and keeps the axle lubricated steadily until the lubricating oil in the box is exhausted and must be renewed.

The best sort of waste of the several sorts was found to be cotton waste, the refuse from the cotton spindles and looms, worth about eight cents a pound. Yet, so great is the demand that the American product of one hundred and eighty million pounds a year is greedily absorbed by the market. It has become the most profitable by-product of the cotton-plant. Over forty million pounds are shipped yearly to Germany for cheap fabrics. Men make fortunes in gambling in it at fractions of a cent

profit. It never sells below six cents, and, in some years, goes over ten.

This constant demand for waste makes a two hundred per cent increase in price over cost of production. Its use for wiping machinery is universal. But something else was needed.

Flower was handicapped in every way. He had nothing on which to begin but his courage and his wonderful chances. It was a virgin field. He was all alone in it and had no fear of competition.

One of the first steps was the acquisition of the knowledge that cotton waste has never been entirely satisfactory. Sometimes it is not resilient enough to hold up against the axle when a costly and dangerous "hot-box" ensues, and, sometimes, bits and particles become detached and get into the close-fitting moving parts of the machinery, causing great damage.

Cotton Waste Is Scarce.

So scarce is cotton waste at times that some of the railroads that must have it or a substitute, use unmixed cotton and woolen waste, or woolen waste entirely, paying the bills and taking the consequences in trouble and damages with a sour face.

Patiently Flower sought the substitute. It must be one that would be cheaper than cotton waste, one that would be resilient and springy no matter whether heavily soaked in oil or very nearly dry, and that would not easily part with fragments to get into the machinery.

He had experimented with all of the inexpensive fibers and all of them were quite useless save coir—the fibrous component of the outer coconut husk. His careful research brought him to the conclusion that this fiber was cheap enough and had the resiliency. It has a stiffness and a rebellious nature which give it a distinct character among all fibers, and it is impervious to both oil and water in its natural state.

Its best quality was that it would neither shrink nor stretch. Plodding along until he had hit the right thing, he found a process of treating the coconut fiber that curled it, and then when it was mixed with cotton waste the combination was perfect. A resilient lubricating waste had been devised that filled all requirements.

It "wicked" the oil to the axle perfectly. Soaked or dry it retained its form in all temperatures and was very difficult to ignite. Fragments of either of the two fibers were infrequent in use. The last drop of oil was used up, thereby effecting a great saving. Less than half the previous quantity in weight was needed—one pound of the mixture was sufficient where a railroad car box required two of the old cotton waste.

When he was sure that he had the right thing, he secured his patents and then he took it to the experimental department of one of the great railroads. An extremely severe test was proposed. A car that was to travel to the Pacific coast was selected. One set of boxes would be packed with the new compound and another set with the ordinary waste.

Flower knew he had found what he had been looking for. He had learned that the demand for waste for wiping machinery was equally great and the supply quite as small; also, that the present commodity is not sufficiently absorbent. First he tried jute fiber, of the sort that is used in burlap and bagging, and because in its natural state it is non-absorbent his friends laughed at him.

At last the day came when the express-car which had been made the subject of the test was due home. A body of men whose business it is to be interested vitally in everything that promises to save a penny or a minute in the mechanical end of a railroad gathered to examine the boxes and the accumulated reports.

Even Flower could hardly believe what he saw. The cotton-waste boxes had acted on the average. One had been repacked and two partially refilled, and there had been the usual troubles. The four boxes packed with the mixed cotton and coconut fiber had given no trouble. They were as full and springy as the day the car left, and there had been an eighteen per cent saving in the consumption of oil. The man who had watched the wheels go round to so good a purpose was showered with congratulations by men who rarely indulge in enthusiasm.

May Save Some Money.

One of the men drew the gray-headed inventor to one side.

"See here, my dear Mr. Flower (the "my dear mister" seemed odd to the modest man), you have to get a factory and a plant to make this stuff, and I suppose you will start out at once. Don't let anybody fool you out of your rights. Now, I don't know what these other fellows are going to do, but you can take my open-time order for half a million pounds at six cents, and begin to fill it as soon as you can."

That night, as he went home, the song of the wheels as they went around beneath Samuel B. Flower was the tune of millions. Over two hundred million dollars is spent yearly for lubricating oils. Mr. Flower may save the people who buy this oil some money.

THE VANISHED FREIGHT.

BY E. FLORENCE.

He Who Told This Yarn Wasn't Known as "Anner Nias," but His Friends Called Him "Monk Hausen."

THE loose-jointed individual and the watery-eyed one met on common ground. They had both been fired from the same freight, and were drawn to each other—or, more correctly speaking, fired at each other, for they came near colliding in the process of ejectment.

"Must take us for blooming cannon-balls," grunted the loose-jointed one.

"Yes; those fellows are certainly on the firing-line, all right," replied the watery-eyed one. "Reminds me of the way I've often floated through space in Kansas, riding bareback on a cyclone."

"So you've been in Kansas, too?" queried the loose-jointed one. "Now, there's a State that can boast some about nearly everything. And, talking of cyclones, did you ever hear how they are formed?

"Well, I met an ex-college professor out there who had succumbed to the wanderlust and hit the road, and he explained the whole thing to me.

"You see, cyclones are formed in this way: First of all comes one of those scorching-hot days when the sun is on to the job for a raise. He gets focused on a certain locality, and fricassees the atmosphere at that location, and keeps on plugging at it until the air is all consumed.

"This creates, as it were, a hole in the atmosphere. Then nature gets busy, and sends a wireless to the spot where there is an oversupply of the ethereal fluid, and as soon as the C.Q.D. is received the air makes a bee-line for that vacuous void.

"Sometimes it travels in a straight line, and sometimes not. However, as it travels, it assumes a rotary motion, due to a law of physics that all swiftly moving bodies must rotate. As it advances in its swift flight, it is utterly unselfish, for it takes everything along that it comes up with.

"Houses, trees, and cattle are gathered in its loving embrace, and the whole blooming outfit forms a sort of relief expedition to the afflicted place. The world moves, but Kansas is a whole moving-picture show. Talk about the shifting sands of time! A Kansas cyclone is the *sine qua non* of motion, and is entitled to full honorary membership in the Scene Shifters' Union.

"It may leave a path of devastation behind it, but think of what would become of that airless void if the C.Q.D. was ignored."

"That's so," replied the watery-eyed one. "Nature has got railroads skinned alive when it comes to delivering the goods. Then, again, a cyclone is a great factor in promoting social intercourse. There are lots of people out there who would never see each other were it not for the fact that they are thrown together by the thoughtful cyclone. I know of a couple of fellows who had not seen each other for years, who met in the air, both joy-riding aboard the same cyclone.

"'Hallo, Bill!' shouted one; 'I haven't seen you for a good while.' 'No,' yelled the other fellow; 'I don't often get up this way.'"

"Speaking of railroading," said the loose-jointed individual, "I'd like to relate to you some of my experiences in the railroad business. Back in the seventies I did key-pounding down in Kansas, on the P. D. Q. road. I held down a shanty up along the line, forty miles from the nearest refectory.

"Did nothing much but give the trains clear track or hold them up to side-track so's to let another train pass. The old P. D. Q. was a single-track road, with shanties and sidings at regular intervals, at which a number of other jays like myself did the brain-work of the system.

"I was holding down this King William job in that Queen Anne cottage, with no great white way nearer than the milky 'baldric of the skies,' and the only stars I could flirt with were those winking at me across millions of miles of space. But I was not astronomically inclined—gastronomy has always been my long suit.

"Well, this particular incident I have in mind happened on one of those days when nature seems to be resting and getting ready for a grand-stand demonstration. Even the grasshoppers had ceased their campaign against the crops. As a rule, the quiet of my position never bothered me much, but that day the silence seemed to get onto my nerves.

"I seemed to sense something was going to happen, and felt as fussy as a magnetized kitten. There was a south bound train due at my villa at 7.30 P.M. I had orders to hold it on the siding until the north-bound passenger, due at 7.45, had passed.

"I set my signals and busied myself doing nothing until the south bound should arrive. I felt mighty glad of the chance for human companionship which the side-tracked freight would supply.

"The sky had assumed a dirty-gray color. The clouds seemed to hang balanced overhead, without any sign of motion. The temperature had dropped quite perceptibly, and, from indications, I felt certain that there was a cyclone sashaying around somewhere in my vicinity.

"I was wondering if my villa was in the path of the whirling dervish, when the stillness was suddenly fractured by the shrieking of the south bound's whistle.

"I got ready to do the reception act, and wondered why Jim Bludsoe kept his whistle blowing.

"In a few seconds the big engine loomed in sight. Along she came, like a race-horse on the home-stretch, and suddenly I realized that the big galoot at the throttle was going to give us the go-by.

"I grabbed my red flag and got busy with the wigwag performance, but old iron horse swished past with his long, brown tail of empty freights strung out behind like the appendage of a comet.

"'What the Sam Hill's the matter with that giddy choffer?' thinks I. Then it struck me all of a sudden that in about seven and a half minutes there was going to be trouble, likewise a lot of scrap-iron scattered over the scenery of the Sunflower State.

"The north-bound train had already entered the same block, and the two trains would meet about half-way between my bungalow and the next one south, on the curve around a grove thereabouts. In my mind I pictured the horror of the scene.

"Say, did you ever read 'Ben-Hur'? Do you remember the chariot race, and how that gay Lothario of the Ghetto had ornamental spikes on the hubs of his chug car? Then, do you remember how, when coming up the home-stretch, he spoke to his team in Yiddish, and they spurted to overtake the fellow on the lead?

"Also, do you remember how the bully boy tacked a little to leeward, so that, by the time the lead horses of the two teams were neck to neck, his chariot swung toward that of mister-man-on-the-lead, and that harveyized toothpick on bully boy's chariot-hub slid in between the spokes of the other fellow's wheel, and there was a sound like the tearing off of several yards of dry noise, and mister-man-on-the-lead's chariot turned turtle, and Benny-boy finished first amid the plaudits from the bleachers and the showers of American beauties from the grand stand and boxes?

"You remember that, do you? Well, that's the kind of noise I expected would vibrate the atmosphere of Kansas in a few minutes; but, as compared to this noise, the noise of that chariot-race would sound like the joyful coo of a happy infant.

"My mind was full of the possibilities of the situation, and I was standing there, paralyzed, as it were, when suddenly there was a roar, and the topography of Kansas began doing the Wilbur Wright act.

"I was picked up bodily and hurled against that shanty of mine with sufficient force to knock the sense out of me. When I came to I saw a train standing on the siding. The crew were emptying the contents of a water-pail over me and searching my anatomy for injuries.

"As my gray matter resumed operations, I realized that it was the northbound passenger-train that stood upon the siding. 'How the Sam Hill did you get here?' I asked the engineer.

"'Why, came in on my engine,' he replied. 'Where's No. 23—isn't she in yet? I had orders to run through to X, and expected to see No. 23 side-tracked here. Not seeing anything on the siding, I pulled up to investigate. What's up?'

"'Didn't you smash into 23?' I gasped.

"'Sure not,' he replied. 'What's the matter? Did you strike your head?'

"'My head's all right,' I replied. 'Twenty-three passed here in a blaze of glory some time ago, and if you didn't see her, where is she?'

"'Come, man,' coaxed the engineer, 'get word along the line and find out when she is due. I don't want to stay here all day.'

"'But I tell you she passed here,' I insisted, and in desperation I rushed to the key and pounded off an inquiry to the fellow south of me as to whether 23 had passed.

"The reply staggered me. He answered in the negative.

"'Where's that train?' I shrieked. 'It passed here at 7.30,' I persisted.

"Just then the rear brakeman came running up the track with a cap in his hand. 'Found this down the track,' he said. 'That's old Jim Bludsoe's cap; and if his cap is here, he must have passed here himself.

"'That's so,' rejoined the engineer. 'But what am I going to do? I can't hang around here any longer.'

"Well, I wired to the northern end for instructions, and got word to send the passenger along. Then the word went over the line to the next station south, to send out a searching party for the missing train. The track between my shanty and the next one south was closed to traffic pending the arrival of the searching crew. In due time they pulled in on a hand car, and reported that they had seen nothing of the missing train. I wired the information to headquarters, and asked for instructions.

"'Open up the road for traffic and send men on foot to make a thorough search for that train; we need it,' came the answer.

"I did as directed, and sent the searching party down the track. Told them to spread out on either side of the track, and work along until they found the wreck, for I felt sure it must have run off the track somewhere.

"After they had been gone about fifteen or twenty minutes, and I had raked my brain for a solution of the matter, I heard a whistle away off in the distance. It sounded low, appearing to come from the south. There was nothing due at my place for an hour or so; so I thought at first it was a relief-party coming up to help solve the mystery, but as the sound continued, and did not get any louder, I concluded that, whatever it was, it was stationary.

"The sound kept up for about ten minutes, and then stopped. I waited for about half an hour, and then I saw one of the searching-party returning on the run.

In the meantime headquarters had been hammering me for news of the engine.

"When the special courier arrived, he was winded; so I saw it was no use trying to pump anything out of him until he got through with his breathing exercises.

"When he got his bellows working again, I learned that they had found Jim Bludsoe and his train about three miles down the road, about a mile and a half away from the track. Several of the cars were standing on end, but the engine and the balance of the train were right side up, scattered over the face of the virgin prairie.

"The searchers had heard the whistle, and proceeded to investigate. They had found the wreck as reported, with old Jim standing in the cab, scared, wild-looking, and battered."

"How the heck did they get there?" asked the watery-eyed one.

"Well, they couldn't get anything out of Jim. He seemed plumb locoed. When I sent in my report over the wire, they sent down a lot of experts to try and salvage the train. Jim Bludsoe was the only living critter left of the crew.

"They figured that the cyclone had caught up to the train on its wild whirl down the track, picked it up bodily, like a blooming air-ship, and carried it across the country to where it was discovered. This was verified by the crew, who came straying in like lost sheep from the prairie whither they had blown.

"It was learned from them that the engineer had developed a crazy streak some time before passing my station and chased the fireman out of the cab. That explained why they gave my signal the go-by. However, Jim Bludsoe never had to answer for his crazy act, for the last I heard of him he was in a drippy domicile, quartered in an upholstered boudoir."

"And what became of the locomotive and cars?" inquired the watery-eyed one.

"Oh, they built a mile and a half of track out to the scene, and the wreckers salvaged the whole outfit. The strange part of it is that a prosperous settlement, known as The Lost Freight, sprung up at the terminus.

"But, then, that seems to be the custom in Kansas. Whenever any of the real estate is shifted by a cyclone, the natives send a tracer after it, and if it is found in good order they migrate to the spot.

"Why, I've seen the same family living in the same house in a half dozen different counties. It's a cheap way to move, and, besides, you don't have to bother about the selection of a site."

"That's so," replied the watery-eyed one. "You don't happen to be related to Anner Nias, do you?"

"No," replied the loose-jointed individual. "My familiars call me Monk Hausen. So long, pard. Thanks for a very entertaining afternoon."

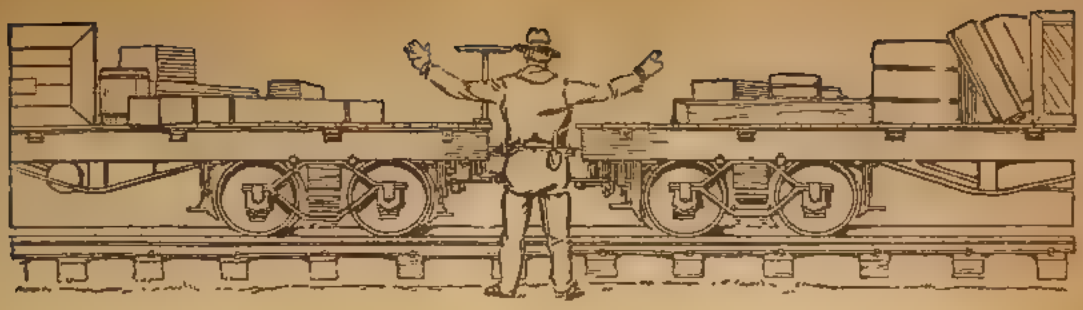
DOUBT ABOUT HUDSON BAY R. R.

MANY doubts and rumors of doubts have been going the rounds since it was announced that the Canadian government planned to build a line from Winnipeg to Hudson Bay. The ice-bound condition of the bay during a considerable portion of the year, and the bleak and unsettled nature of the country through which the line would have to pass, have been quoted as insurmountable objections to the scheme.

The recent preliminary report of the surveying party sent out by the government, however, will set at rest many of these doubts, though it does not bring a final decision. The surveyors report that a line could be built easily and cheaply, either to Port Churchill or Port Nelson.

They estimate that the cost, including harbor and terminal works, would be between seventeen and eighteen million dollars. The engineers favor the line to Port Nelson, as that point is some sixty miles nearer Winnipeg, and the port is ice-free for about one month longer than is Port Churchill.

The country through which it passes is also much better adapted for agriculture. In spite of this report, however, the government will take no further steps toward the construction of the line until it has fuller evidence that the bay is open for navigation for a sufficiently long period each year to warrant the establishment of steamship lines.



Finding the Secret of the Automatic Coupler.

BY E. L. BACON.

LIFE-SAVING inventions rank first in importance in the field of human ingenuity. An invention that saves a man time and worry, that enables business to be transacted in double the volume of former standards, can be hailed with delight, but the life-saving device is hailed with a thankfulness that has in it considerable of reverence. Of all life-saving devices it is doubtful if one can be found to rank with the automatic coupler. Every year more men were sacrificed to the link and pin than in battles that have decided the fate of hemispheres; and to Janney and Miller belongs the undisputed glory of having saved thousands of the country's sturdiest sons, and what positions some of those sons have filled none can tell.

The Toll of Human Lives That Was Paid Before a Genius Among Eight Thousand Men Found a Way to Prevent the Slaughter.

THE automatic car coupler, which fastens by impact and is unfastened by the turn of a handle, seems like a simple contrivance, the invention of which could not have called for unusual mechanical ingenuity. To-day the automatic coupler is used on every railroad car in America, yet from the time men first began to work upon the idea at least thirty years passed by before the device was perfected so that it could be put into general use.

During that period scores of fortunes were frittered away in the search for the true secret of its mechanism, and the labor of thousands of inventors ended in disappointment. For a generation the automatic coupler was a will-o'-the-wisp to half the inventive genius of the country.

Perhaps no other invention had ever been attempted by quite so many men—certainly no other that, when at last it was accomplished, seemed so simple. It was a search as popular, as absorbing, as heart-rending as was that of the medieval alchemists for a way of transmuting gold.

Surely even the long-lived delusion of the possibility of perpetual motion never obsessed more dreamers of a mechanical turn of mind than did this effort to couple railroad cars automatically and instantaneously without risk to life or limb.

One wonders, when one examines the modern coupler, which is far from being a complex piece of mechanism, that it took so long to perfect it, or that thousands failed in their efforts to find the secret.

The Coupler Fever.

In 1886 four thousand patents had been granted at Washington for automatic couplers, and twelve years later the number had grown to eight thousand. It is doubtful if two per cent of these eight thousand inventions ever brought a penny of profit.

It was in the late forties that the effort to make an automatic coupler was begun. And for forty years afterward—in fact, for fifteen years after the solution of the problem—coupler inventors were haunting the offices of every railroad in the country.

They came in swarms, inventors with long hair and wild eyes, who dreamed of becoming millionaires within the year; and others, sober-minded, practical men, many of whom seemed to have come close to the heart of the mystery.

When the fever was at its height the traffic manager of a railroad would find a line of coupler inventors stretching from his door down the hall like a long snake, every one of them with a miniature train of cars, in all kinds of receptacles.

Perhaps fifty per cent of the hordes of inventors would succeed in getting a hearing. If one of them succeeded in getting through the skirmish lines of office-boys and clerks, who were accustomed to shoo them away as if they were book-agents or pedlers, he would lay out a miniature railroad track on the floor of the official's office. Then he would set his cars on the rails and bang them together with terrific force to illustrate the workings of his contrivance.

But somewhere there was a weak point in every one of these inventions. It was astonishing how many things there were to be considered in the making of a successful coupler. The problem of curves was the pitfall that proved the undoing of many of the enthusiasts.

They had failed to realize that a coupler that would not turn to right and left at the knuckle would be serviceable only on an absolutely straight track. Of course, there are inventors with such buoyant optimism that they are not discouraged when confronted with such an obstacle as that.

"That is not the fault of my coupler," said one of them. "It is the fault of your railroad. What's the matter with relaying your tracks and taking the curves out?"

At last a coupler inventor came along whose idea did come into practical use. He was Colonel Ezra Miller, of the horse artillery. A dashing figure was the colonel in New York City in the forties, especially when on parade in his showy uniform at the head of his National Guard regiment.

He had traveled on the first trains in the country, in the days when stage-coach bodies were placed on trucks and run on strap rails. Railroads had had a fascination for him from their beginning.

He would spend hours watching the trains go by on the Harlem road, until, in 1848, he moved to Magnolia, Wisconsin, to survey State lands. There he became a justice of the peace; and later, because of his fame as commander of the horse artillery in New York, the Governor appointed him colonel of the Eighth Regiment of the Wisconsin militia. Still he continued to spend almost all his spare time studying railroads.

In those days the platform, buffer, and coupler were placed below the sills of the car, although the sills are the line of resistance to any longitudinal blow. The colonel saw the folly of this, and realized that it added greatly to the dangers of travel. Often it was responsible for the telescoping of cars in collisions.

He determined that the platform, coupler, and buffer should be placed on a line with the sills; that the cars should be coupled with compression buffers and with couplers that fastened by impact. In 1863 he patented the "Miller platform, coupler, and buffer."

The coupler was automatic—the first automatic coupler ever put into service. Moreover, it prevented the oscillating movement of cars acting independently when coupled with slack links or chains, a movement that caused many broken rails and the violent whirling of rear cars from the track. The compression buffers made the train a solid whole.

Extra Hazardous Labor.

But although the colonel's invention was hailed as the greatest life-saving discovery of the age, and was adopted before long by every large railroad in the world, the great coupler problem was not solved by any means. The Miller coupler, which is referred to nowadays as the "Miller hook," was intended only for passenger-trains, and the coupler problem pertained principally to freight-cars, there being about forty times as many freight-cars as passenger-cars in service in this country.

While the hook, backed by the elaborate platform and buffer, was a great improvement on the old link and pin, it would be impossible to apply it to a freight-car. Then, too, the hook did not always work instantaneously, and sometimes cars had to be banged together two or three times before fastening.

Hundreds of men were being killed and thousands injured every year because of the lack of an automatic freight-car coupler. With only a few thousand passenger-cars in use, and hundreds of thousands of freight-cars, the adoption of the Miller hook had scarcely a perceptible effect upon the number of accidents.

It was dangerous business coupling cars in those days. There has never been anything more disastrous to life and limb than the old link-and-pin coupler, and it is only ten years since the last of them went to the scrap-heap.

Mutilated men were a common sight in railroad yards. An instant's delay in lifting the link and slipping it into place might mean the loss of a hand or an arm. Hundreds of lives were crushed out between the heavy beams that acted as buffers at the ends of the cars.

It was intended that there should be enough space between these buffers for a man's body, but all cars were not the same in this respect, and sometimes the buffers came close together. A man engaged in coupling cars had to be on a constant watch to see that there was going to be enough space left for him when the cars should come together.

Uncoupling was almost as dangerous. It had to be done with the cars in motion; and at night, in the uncertain light of a swinging lantern, it was not uncommon for a man running along between the cars to slip and go under the wheels.

During the years 1882, 1883, and 1884 the average annual number of men killed in this country while coupling cars was four hundred and fifty-nine, and the number injured seventeen thousand eight hundred and fifty, a total of eighteen thousand three hundred and nine—more casualties during one year than were suffered by the Union army on the bloody field of Gettysburg.

Confronted with such figures as these, there began to be a public awakening to the necessity of putting an end to the slaughter. The Master Car Builders' Association took a hand in the matter, and its members began to demand a standard type of coupler.

Clearly a standard type was a necessity, since no railroad's freight-cars were confined to its own lines. The association appointed a committee to look into the matter.

The Weeding Process.

The committee looked over the field to discover an automatic coupler that would fit all requirements, and they found a few thousand kinds to choose from. The hungry coupler inventors, scarcely any of whom had succeeded in marketing their wares, came down upon the committee like a vast army, equipped with diagrams and models.

It was decided to hold a series of tests to determine which was the most satisfactory of all the couplers offered. In 1885 the association's committee held trials at Buffalo, with the intention of recommending twelve makes.

They expected a horde of inventors at these trials. As a matter of fact, only forty-two kinds of couplers were presented for the tests. Most of the rest

had not been brought out by the inchoate model stage.

As a result of the tests the committee chose six automatic couplers of the link-and-pin type, and six known as vertical-plane couplers, so called because they came together on a vertical plane. A year later the committee held further trials at Albany, where thirty-three kinds of couplers were tried.

At Boston, in the same year, one hundred and seventy-three couplers were entered for competition before the Massachusetts State Railroad Commissioners.

The master car builders at last picked out the one coupler that they considered the most satisfactory of the lot. It was a coupler of the vertical-plane type, and had been invented by Eli H. Janney, who at that time was unknown.

Janney had been brought up on a farm in Virginia. For fifteen years he had been experimenting in an attempt to solve the coupler problem, and as early as 1873 had hit upon the design to which the master car builders gave first place. For five years after getting his patent he had tried in vain to interest railroads in his invention.

His original invention was a passenger-car coupler, and for passenger cars the railroads were using the Miller hook, and did not care to go to the expense of making a change. At last the Pennsylvania took a fancy to his coupler for their passenger-cars.

Then, in 1882, using the same contour lines for the clutching part of the apparatus, he invented an automatic freight coupler, and it was this invention that won out in the master car builders' tests.

Janney's Two Devices.

Janney's first invention consisted of a coupler body with a bifurcated head and a revolving hook or knuckle, with a vertical lock actuated by a flat spring, locking automatically on the closing movement of the knuckle. His invention of 1882 had a vertically moving locking-pin, especially suited to freight service.

As the rules of the master car builders prohibited them from adopting any device covered by a patent, however, they succeeded in inducing the parties in interest to waive their patent rights to the Janney contour lines. This opened the field for other inventors and manufacturers to come in and furnish couplers having the contour lines that the association had adopted, but with different locking mechanisms.

Even now the battle was only half won. It would cost a good many millions of dollars to equip all the freight-cars with automatic couplers.

The railroads didn't care to spend the money. Congress had to take a hand, and in 1893 the Safety Appliance Act was passed that compelled the roads to use automatic couplers on all cars, giving them until August, 1900, to complete the reform.

The Vanished Horde.

To-day, in spite of the fact of the eight thousand patents that have been granted, there are not more than fifteen makes of couplers in general use, all having Janney's contour lines, which the master car builders made the standard. Some of the manufacturers bought up several of the patents to combine them into one coupler, but it is safe to say that considerably less than two hundred of the eight thousand were ever sold.

The making of automatic freight-couplers is exclusively an American industry. In the British Isles and in the European countries they use screw couplers, which take several minutes to fasten, and the old link and pin. American manufacturers have tried many and many a time to induce the Englishmen to make a change, but without success.

Not one of the horde of coupler inventors made any great fortune. Very few made anything. But Colonel Miller's platform, buffer, and hook brought him a quarter of a million dollars, and Janney is supposed to have made a good deal more than that.

Still, not every inventor who has achieved great wealth has contributed so much toward saving human life as Miller and Janney. No man loses his life or is maimed nowadays in this country while coupling cars. If it were not for the automatic coupler the number of killed and wounded, taking into consideration the increased number of cars, would be more than fifty thousand a year.

A Track-Walker's Devotion.

BY EDMUND G. KINYON.

THE TRUE STORY SERIES. Even the unbalanced mind leans to the instinct of preserving human life. This bit of history shows how duty can become so prominent a part of a man's life that the idea of it lives on after all but the merest physical vitality has departed. In the old track-walker's case physical life is, in fact, secondary to and probably dependent upon this overpowering instinct to accomplish what he believes to be his mission.

TRUE STORY, NUMBER THIRTY-EIGHT.

How an Old Man's Task Has Become the Unbroken Thread That Has Held Him to Life After the Light of Reason Failed.

JAMES DRUMGOLD'S name does not appear upon the pay-roll of the Southern Pacific Company, yet for more than twenty years he has patrolled the seven hundred miles of desert track stretching between Los Angeles, California, and El Paso, Texas. He has rendered as faithful service as any other track-walker in the pay of the company.

There is deep pathos in this story of Drumgold, or "Crazy Charley," as he is known all along the way. It is a striking example of that devotion to an imaginary duty which ofttimes possesses a mind which has slightly left its moorings. Drumgold is old and gray, and his body is bent and worn with years of heavy labor and exposure; yet no influence can induce him to desist from his self-imposed task.

He is a martyr to a deranged intellect, an intellect which forces his tired body to this endless pilgrimage in the belief that the safety and lives of thousands of passengers depend upon his faithfulness.

Many years ago, when the Southern Pacific was first built across the desert, Drumgold was employed as track-walker in a lonely section. For a number of years he performed his duties in a most trustworthy manner; then, somehow, the great desert, with its sameness and mystery and solitude, got into his brain, and he saw queer visions and conversed with unseen persons as he went about his tasks.

Rumors of his condition reached the superintendent's office, and in due time an order was issued discharging Drum-

EDITOR'S NOTE: All the stories published in this True Story Series have been carefully verified by application to officers or employees of the roads or companies concerned who are in a position to be acquainted with the facts. Contributors should give us the names of responsible persons to whom we may apply for such verification, in order that fruitless inquiries may be avoided. This condition does not imply any lack of confidence in the veracity of our contributors, but is imposed merely to give greater weight and authenticity to the stories.

Series began in the October, 1906, Railroad Man's Magazine. Single Copies, 10 cents.

gold from the service of the company, and another man was sent to take his place.

But Drumgold argued with himself that harm would surely come to the passengers and trainmen should he cease to patrol the track, so he disregarded the order and continued his inspection. Heretofore he had patrolled only a few miles of track; now he resolved to patrol the entire desert, and that is what he has been doing for the past twenty years.

THE TRAINMEN SIGHT HIM DAILY AT SOME POINT ALONG THE WAY, TRUDGING BESIDE THE TRACKS.

Every trainman is familiar with the bent, worn figure of "Crazy Charley," although he avoids the towns and is seldom seen by the residents of the country through which he passes. The trainmen sight him daily at some point along the way, trudging beside the tracks, laboriously carrying a roll of blankets, a little cooking kit, and a canteen of water.

He stoutly refuses all invitations to ride, asserting that he must walk in order to do his work properly. His eyes are constantly upon the track. Every foot of rail is scrutinized, every bridge and culvert and cattle guard inspected. No high salaried engineer is more painstaking and tireless.

Drumgold's vigil has not been entirely in vain. In at least two instances he has prevented disastrous wrecks. One night a passenger train was flagged in a deep, winding cañon, and when the crew ran forward they found "Crazy Charley" shrinking against the wall of the cut.

The train proceeded slowly, and just around the bend a blazing bridge was found. In another instance a cloudburst washed out a section of track. An approaching freight-train found danger signals between the rails, but there was no one in sight. Later it was learned that Drumgold had placed the signals and then hid from view.

Many times he has given section bosses and road-masters information concerning defective track or weakened bridges, and such information has always been found reliable.

Many efforts have been made to induce Drumgold to give up his weary wandering. At first the company feared that evil might come from his presence, and he was ordered repeatedly to stay off of the right of way, but he always ignored the orders.

Wealthy relatives have pleaded with him in vain. At one time a brother obtained a promise from him that he would remain in one place provided a house was built. A comfortable cottage was accordingly erected at Cabazon, Cali-

fornia, near the railway track, and completely furnished.

The old track-walker seemed satisfied and agreed to remain there the remainder of his days. He slept in his new house just one night, then started for El Paso, five hundred miles eastward.

Recently this same brother resolved to make another effort to rescue the old man from his life of hardship. He obtained permission to ride the cab of freight-engines, and spent several days in search before locating the wanderer.

Finally, far out on the Salton desert, twenty miles from a station, the old man was sighted at dusk, squatting beside his tiny camp-fire. The train was stopped and he was taken, half forcibly, aboard.

The brothers left the train at Indio and spent the night at the town hotel. "Crazy Charley" went to bed, faithfully promising to accompany his brother to San Francisco. In the morning he was gone. During the night he had arisen, and started on his endless journey.

Summer and winter, storm and sunshine, are alike to Drumgold. Nothing deters him from his daily pilgrimage along the track. Those who have taken note of his movements assert that he averages the round trip of seven hundred miles between Los Angeles and El Paso once each year.

So far as known, he never proceeds beyond those cities, although they by no means mark the confines of the Southern Pacific system. Why he has selected this particular stretch of track is a mystery.

WHY HE DOESN'T LIKE "UPPERS."

They Would Be All Right, Says the Traveler, if Provided With a Private Elevator and a Dressing-Room.

"TAKE it from a man who has tipped sleeping-car porters from Montreal to Pensacola, and from Seattle to San Diego," said an old traveler to a writer for the Washington (D. C.) *Post*, "the upper berths on sleeping-cars ought to be abolished on general principles, and the Minneapolis man who has complained to the Interstate Commerce Commission about them, and who wants them put at a lower rate than lower berths, has a drink coming when I meet him.

"Of course, there are a few fresh-air fiends who stand out for the uppers, and aver they are superior to the lowers, but the great majority of travelers utter indecorous remarks when the man behind the ticket-window says, 'The best I can do is an upper.'

"Uppers would be all right if each one were equipped with a private elevator and had a dressing-room attached, but the discomforts which they provide offset the advantages which are claimed for them about three times over.

"I'll admit that there is a freer circulation of air up there. Sometimes it's so free that the doctors get a nice thing out of it. Also, if the ventilators aren't working properly there's sometimes a free circulation of black smoke, which is a bit disconcerting, to put it mildly.

"The climbing up is what gets me. You have to wait your turn for the ladder, while the lucky chaps in the lowers make facetious remarks which are calculated to disturb your balance when once you do get your feet planted on the ladder. Then when you once get up and find yourself sitting on the edge with your feet dangling over the aisle you are confronted with the problem of undressing.

"When you get some of your things off and start to hang them up you find that you've got to disturb the serenity of the person in the lower berth if you want them to hang right so that they won't be all cluttered up across your feet

"You have to pull out the curtain and let them fall down below the level of your bed. Once when I did that a fussy old maid, who occupied the lower berth, and who had apparently noted my operations with growing alarm, called out in a shrill voice, warning me against invading her privacy and threatening to sick the porter on me.

"After you're once wrapped up in the blankets there is a certain sense of freedom up there that you don't get in the more confined lowers, and if there aren't many tunnels with their accompanying smoke, you sleep pretty well, but when it comes to getting up, your troubles are renewed."

McALLISTER'S GROUCH.

BY CHARLES WESLEY SANDERS.

When He Found Out Who the Operator at MX Was, It Vanished Like the Mist.

McALLISTER'S promotion had been rapid. He had blown into the chief despatcher's office one afternoon and asked for a job, having ridden from the western terminal in a caboose. He had answered questions satisfactorily, and the chief had sent him to a way station to work nights.

"Say, that man at BG is a whirlwind," the third-trick man said next morning. "He sends like a machine, and I never had to call him more'n twice."

"Think he'd be all right copying up here?" the chief asked.

The copier on the third trick had quit the week before, and the chief had been hesitating whom to put in his place. There were, of course, any number of operators who could have done the work, but the chief wanted a man who had the making of a despatcher.

So, when McAllister came to work the next night, he found a message ordering him to report for duty on the third trick at the despatcher's office in twenty-four hours. He came—a tall, dark-haired, blue-eyed young man—who spoke only when business demanded it, and who eternally smoked a long, thick, very black cigar.

Everybody admired him on the spot for his ability, but he made no friends personally. When he was spoken to he answered with a nod, when pressed; by a monosyllable when necessary.

Sometimes he was almost discourteous. The chief dropped in one night while the despatcher was at luncheon, and wanted to know where 48 was.

"It's on the sheet," McAllister said, shifting his big cigar and leaning back in his chair.

The chief had a notion to speak sharply, but he only looked at the sheet and went into his own office.

"I wonder what's eating that fellow," he said to the trick-man when they met on the stairs a little later.

"He's a queer fish," the trick-man said. "I feel like smashing him one in the jaw sometimes, but I'm afraid I couldn't get away with it."

The reason for McAllister's grouch was very simple and as old as the race. He had been disappointed in love. Like all persons who have been so disappointed, he kept on thinking about the girl. He had her picture always with him, and wrote a letter to her every night—and then tore it up. After the letter-writing he would pace his room.

"I'll be hanged if I'll pay any more attention to her," he would say, and then he would dwell upon her looks and her ways till his heart was like lead. And then his grouch would sweep over him like a flood, till he was immersed.

He had worked his way to the first trick on the road where he had learned telegraphy. Her father was the chief. McAllister and the girl became engaged. The father died. Unwise investments had taken all his money.

Even the home had to be sold to meet debts. The girl had a mother and a sister to care for. The mother was incapable of effort for herself, and the sister was too young to do much at breadwinning. The superintendent gave the girl a place as a telegrapher in the yard office. McAllister was furious.

"What are you going to work for?" he demanded.

"We must live," she said.

"I'm working, am I not?" he asked.

"Why, yes," the girl said gently, "but—"

She paused and looked at him appealingly. He had a temper and looked at things simply.

"But you couldn't let me help you?" he finished for her.

His anger rose higher. To think of her going to work made his blood boil. According to his way of thinking, she might easily have let him take care of the family, or she might have married him at once. But he was too angry now to suggest that latter.

"You are speaking harshly," she said, still gently.

He fumbled for a cigar.

"Well," he said slowly, and his voice was harder and more bitter than he was justified in letting it be, "well, if I'm not good enough to help you, we might as well call it quits."

He had not meant quite that. He had no idea of giving her up. But he hurt her so that her own temper rose. She straightened herself and looked at him kindly.

"You are going rather far, aren't you?" she asked.

"Why, no! I'll go farther than that if I like."

"Indeed?" She rose and walked to the door. "You may come to see me again when you can act like a gentleman." Then she left him.

He sat for a moment, listening for her return. There were two closed doors between him and the sound of her weeping. He arose and left, slamming the door behind him. He heard next morning that she had gone to work.

He resigned to the chief despatcher as soon as that official came to the office. The chief knew that it was futile to question or argue, and he accepted the resignation with a sigh. McAllister was a good man—too good to lose, in spite of his peculiarities.

And now he was working a trick on a road two hundred miles away, but ever she dwelt in his heart. He grew sadder and colder and sterner; and she, doing the task she had set herself to do, wondered how he was and whether he ever thought of her?

For lovers' quarrels partake of such folly and madness.

The first-trick man was ill. McAllister and the second-trick man were dividing the time—McAllister working from midnight till noon. This gave him two sets of operators to work with, the day men and the night men. He had got the night men trained, because they were afraid of his speed and his sharp way of doing business; but he had had one or two wire fights with the day men.

"Who's that man at MX?" he asked the chief.

"IT'S ON THE SHEET."

The chief smiled and opened his lips to reply. Then he seemed to change his mind. He finished a message he was writing. McAllister repeated his question with a frown.

"Oh, that's somebody the superin-

tendent of telegraph sent over when I asked for a man. I haven't seen him. We were so rushed. We didn't even give him the color examination."

"Well, he's a ham," said McAllister. "I should think we might get a better class of operators."

"How're they moving?" he asked the second-trick man when he came on.

"Rotten," said the second-trick man. "There's been a heavy rain west, and there was a little washout at Dascom. MX says it's sleeting there to beat the band. I had the general office set the repeaters in here, but it's pretty heavy yet."

He pulled up to show how heavy the wire was. McAllister slipped into a chair and began to make dots firmly, even on that leaking line.

"I guess you can put it through," the second-trick man said.

McAllister spent a few minutes getting terminals to see how they were adjusted. As he was calling an office, MX broke and began calling him. McAllister tried to break, but MX was not adjusted.

He waited till the operator closed his key. Then he called the office nearest MX, and told the operator there to get MX adjusted. That operator did so, and McAllister was soon able to make MX understand.

He administered a smarting rebuke because the operator hadn't had sense enough to pull up in heavy weather. The operator offered an apology, and McAllister snapped open his key.

"What are you working for?" he demanded. "Where's the night-man?"

He had recognized the sending of the man he had previously and politely designated as a "ham."

"He's sick," was the nervous reply. "I'll have to work to-night."

"Well, it's going to be bad," McAllister said. "You want to keep on the job."

It proved to be very bad, indeed. Fog was reported all along the line, with sleet and rain in spots. McAllister never took his hand from the key, or his eyes from the sheet.

Toward midnight what he had feared happened. A train slipped between spreading rails. Not much damage was done, but another train jamming along

"YOU MAY COME TO SEE ME WHEN YOU CAN ACT LIKE A GENTLEMAN."

in the mist ran into the first one, and the cars went all over the right-of way.

A fireman had a broken leg, but none other was injured. McAllister telephoned the trainmaster, and in an hour he was speeding west in a special.

McAllister called an office to give an order to the special. That office answered promptly, and McAllister called the yard office. There was no reply. A while before the operator at the yard had said that the yardmaster thought there would be no 49, but that train had not yet been annulled. McAllister, knowing the yard-man would report 49 ready, sent this order to the trainmaster's special:

> Number Forty-nine of this date is annulled.

That sent the special speeding against 49, so far as technicalities were concerned, without 49 having been annulled.

A little later the operator nearest the wreck sent a report from the conductor of the train which had gone into the one derailed. McAllister called MX, and MX answered promptly.

"Msg for extra west," McAllister said. "Sm fine."

Which meant that he had a message for the special, and that the message was "some fine," or long. Sending long messages was McAllister's forte. His Morse was perfect, his spacing being as if cut out with a knife.

MX did not break for the first hundred words. The wire seemed to be working better. McAllister's speed increased till his sounder sang. MX broke, and then broke again. McAllister slowed down, MX got started again, and McAllister once more speeded up.

MX broke nervously, and then again more nervously. McAllister slowed down again, but still MX broke. Once the operator held open his key for twenty seconds, while McAllister fumed at the vacant wire. When MX said, "Go ahead," McAllister shot a short but ugly word over the wire.

"Never mind," he said, "I'll send it to BX."

The man at BX was an old-timer, and he had a typewriter, so that McAllister could not put it up his back.

"There's some sense to you," McAllister said at the finish, for he admired good work as much as he loathed poor.

The operator at MX heard with burning cheeks. The operator at MX was well aware that the operator at BX was a better telegrapher, but that was no reason why McAllister should rub it in.

Then Fate's finger touched the proud McAllister.

The yard operator reported 49 ready, the yardmaster having scared up enough loads for a train. The yard operator asked for orders. McAllister said there were none.

Forty-nine pulled out and glided away through the mist. At the scene of the wreck they let her through the siding, and she sped merrily eastward, while the trainmaster's special bore down upon her from the east.

"Os's" came from offices along the line, reporting 49 and the special by. McAllister studied the sheet and kept things moving well, considering the weather and the fact that he had a bad wreck on his hands.

Presently he wanted to put out an order to 49 to meet a train at a siding near MX. He called MX.

"Think you can copy an order?" he asked.

"I'll try," the operator meekly said.

McAllister called a station ten miles down the line. The station answered promptly, and McAllister started his order.

"To No. 49, MX," he began, and then MX broke.

"Forty-nine's gone," was the laconic report.

"Why didn't you report them coming?" McAllister snapped.

"You didn't tell me to."

McAllister knew he had not done so, but the fact of his omission only made him more angry. He started a smarting rebuke when the station east of MX broke in.

"Os, os," the operator said slowly. "Special west by 1.10 A.M. with one coach."

McAllister shot his eye down the sheet. Then he knew. For a moment, strangely, he had no sense of shock or horror. He was only filled with a great wonder that he, the most careful of men, should

have made this colossal blunder. While he had been sitting here in his chair in a warm office, he had been letting men go forth to their crashing death. It was rank stupidity.

He leaned back in his chair and closed his eyes. First, he disposed of himself. He had a notion of flight—the inevitable swift emotion in such cases—and then he decided to stay and face the music. That was more his way.

Action followed swiftly. He called the yard office and ordered an engine got ready on the instant.

"Stick some box cars behind her," he said. "I want to make time."

Then he called a couple of doctors who lived near by and gave orders, putting everything in to clear for his special of an engine and two box cars. Slipping into his heavy coat, he ran down the stairs and hastened to the yard office. The doctors came presently.

"What's up?" the operator asked.

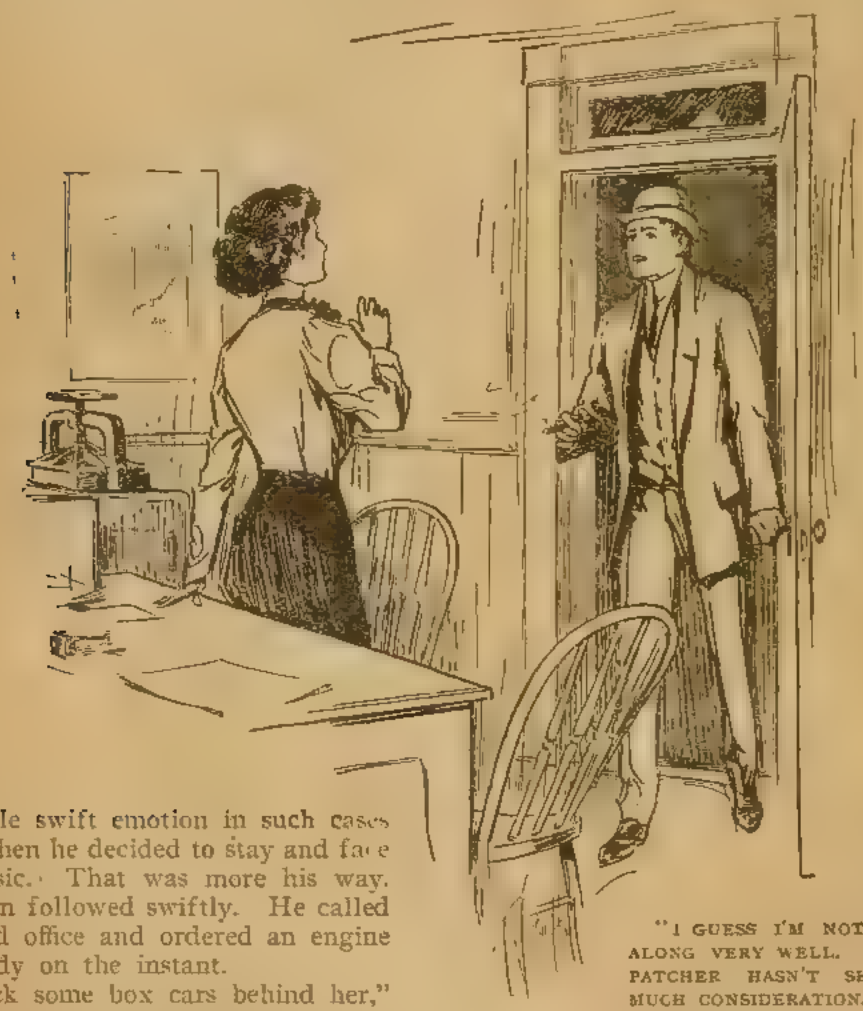
McAllister only scowled and went out to the engine. With the two doctors, he crowded into the engine-cab.

"You can let her out," he told the engineer.

"It's pretty slippery and foggy," the engineer said.

"Never mind, we've got to get over there."

McAllister had so much on his mind that he had no sense of fear. He sat chewing his cigar, while his scowling eyes sought to pierce the gray-black



"I GUESS I'M NOT GETTING ALONG VERY WELL. THE DESPATCHER HASN'T SHOWN ME MUCH CONSIDERATION."

bank ahead. It was characteristic of him that he had no moment of despair. He only wanted to get to the wrecked train, to help those whom his carelessness had injured. Then he would decide upon the next move.

Through his plans shot a thought of Anna. He wished that she had not been so stubborn. They might have been happily married. If he had had her safely in a little home of their own, he would not be in his present predicament. Worry had made him unstable. He

had had nothing to care for—nothing to work for.

"We're near MX," he said. "Why!" He strained his eyes. "Why, that chump has got the block against us. Heaven, what a ham that fellow is! Whistle him!" he ordered the engineer.

The whistle screeched. McAllister kept his eyes on a tiny point of light that showed red through the fog-bank. He wanted it to disappear. He knew MX had no orders for this train, but there might be something wrong somewhere. That little flickering light could not be ignored.

"You'll have to stop," he told the engineer through his set teeth. "I'll go in and murder that fellow."

They were a hundred yards beyond the telegraph office when the engine slid to a standstill. McAllister jumped down, bidding the engineer to stay where he was.

"I'll be back in a minute," he said.

He strode to the office, slipping now and then on the soft clay. The sleet and the mist had coated the windows, so that he could not see inside the office. With a touch of anger, he threw open the door and stepped in.

"What have you got that block against us for?" he cried as he sprang to the door which separated the outer room from the telegraph office. "Didn't I put everything in to clear?"

He threw open the door, and as he stopped on the threshold the operator rose to face him, her back to the table.

McAllister gasped. The operator was a slim, white-faced, tired looking young woman. Her brown eyes were wide now with astonishment, and her lips were tremulous.

McAllister was sure she was about to cry. She put up her hand and brushed back her soft hair. It was a well-remembered gesture — one of her most charming

"Anna!" McAllister breathed.

"Well?" she whispered.

"What are you doing here?"

She laughed uncertainly.

"I'm working," she said. "That is, I'm trying to work. I guess I'm not getting along very well. The despatcher hasn't shown me much consideration. I

"YOU SAVED ME, LITTLE GIRL."

told him the night-man was sick, and I thought he would bear in mind how long I had worked."

It was inconsequential talk to cover her confusion, but it was sweet to McAllister's ears.

"How do you happen to be here?" he asked.

"I don't happen to be here," she said. "I came here on purpose. I came to see you. I meant to go straight to you, but then I lost my nerve. I asked the superintendent for a place, and for father's sake he got me in here without any of the usual red tape. I heard you were half sick and irritable, and mother didn't need me any more. I don't know whether you heard, but we found some insurance papers of father's. Those gave mother enough—"

"Anna—Anna!" McAllister broke in. "You have come too late. I'm a ruined man. I can't ever get on my feet again."

The despair was so unlike him that it made the girl shudder. It was as if some strong thing upon which she had leaned had suddenly grown weak.

"Why is that?" she asked.

"I sent an extra against 49 to-night. I expected to annul 49, but I forgot it. I don't understand how I ever did it."

"I heard you send the order to the extra," the girl said. "I knew you hadn't annulled 49. I heard you let 49 out of the yards, too."

"Oh, Anna!" the despatcher cried. "Why didn't you tell me?"

"I tried," she replied, and he thought her voice was cheerful under the circumstances; "but you wouldn't let me. Don't you remember I tried to break three times when 49 was coming?"

"Yes, and I told you to stop," he admitted reluctantly.

"Well, I mustn't sit here any longer. We've got to get over there and see how bad it is."

The girl went close to him.

"Why don't you wait till the extra comes?"

McAllister stared at her in amazement.

"The extra is probably in the ditch by now," he said. "Don't you see that it and 49 would meet head on?"

"Oh, no," she said. She picked up a manifold-book that lay on the table. "Read this."

McAllister read:

> Number Forty-nine, engine 408, will run as extra east from Main Crossing to Edgerton. Extra east, engine 408, and extra west, engine 37, will meet at Harland siding.

"I grounded the wire and sent that to the extra west," the girl said. "Then I put the block red, so that I would hold everything till the extra west got here. That made it safe, didn't it?"

McAllister sat and stared at the sheet of yellow tissue-paper in his hand. The hand, for the first time within the girl's recollection, trembled. When McAllister looked up and spoke his face was white and his voice trembled.

"You saved me, little girl," he whispered.

"All you've got to do now is to fix your sheet, isn't it?" she asked.

"That's all," said McAllister. "Oh, of course, I won't try to deceive them! I'll tell the chief the whole truth. I guess I can still hold my job. Despatchers are scarce in these parts."

They fell silent. There was something more to say, but neither knew how to say it. Outside, the engine which had brought McAllister over whistled sharply.

"They're getting impatient," McAllister said.

He rose and went to a window, rubbing it with the palm of his hand. But the mist on the outside still covered the pane. He threw up the sash.

"The extra west is coming, Anna," he said. "I'll have to do a little despatching from here."

He moved toward the table and the girl stepped back. He raised his eyes and met hers. They looked at each other a full minute. Then he held out his arms and took a step toward her.

With a laugh that was half a cry she stepped toward him.

A red light is bigger than a mogul. Respect the boss.—Old Eagle-Eye.

HELP FOR MEN WHO HELP THEMSELVES—NUMBER 27.

SPEED AND POWER OF THE LOCOMOTIVE.

BY C. F. CARTER.

WHETHER the electric locomotive will ever supplant the steam engine as the chief railroad power, cannot be said to be an actual problem of operation at the present moment. Nevertheless, the records of both forms of motive power cannot help but bring up the suggestion that in the very near future large districts will, either because of peculiarities of traffic or of country, find it more economical to use electricity.

The purpose of the following article is to attempt to set forth some of the statistics only of these records. Whether actual operation under identical conditions would bring the same contrasts is a matter that can be dealt with only when and where such operations have taken place. As yet, we fear, comparisons can only be of a somewhat general and experimental nature.

There Are Some Signs of Discontent With the Steel Giant of the Tracks, and Many Experiments Are Pointing to Electricity.

USUALLY the volume and vociferousness of a man's own account of what he is doing, has done, is going to do, or could do if he wanted to, may safely be set down as bearing an inverse ratio to his actual achievements. The same principle applies to machines.

Of all the machines ever invented, doubtless the average dweller near a railroad believes that the locomotive makes the most noise about its performances. The act of hauling a few cars across the country is made the occasion of an uproar that can be heard for miles around. A visitor from another planet might be pardoned for assuming, the first time that fearful din assailed his ears, that he had stumbled upon the main power-plant which keeps the universe in motion.

Yet, as a matter of fact, the locomotive is, theoretically, the most wasteful and most inefficient of prime movers. It has been found by observation that a locomotive is engaged in useful work only one-fourth of the time it is fired up and under expense. Of the heat units in the coal shoved into its furnace, but little more than half as many as would be rendered available by a stationary steam

power-plant, notoriously inefficient as it is, are utilized.

To be of any use at all, a locomotive must have its steam pressure maintained at the maximum. Under such conditions it necessarily blows off frequently, and while the safety-valve is open shovelsful of coal are passing out of it in the form of wasted steam. Finally, the amount of coddling and grooming that a locomotive requires at the hands of its engineer and fireman and hostlers and wipers and coal heavers and sand-men and machinists and boiler makers and boiler-washers, and so forth and so on, is beyond belief of any one but the auditor, under whose eyes the numberless rivulets assemble in an appalling flood of expense.

Need of Close Figuring.

Of course, the locomotive is rendering a service of such inestimable value that a grateful world dislikes to look too closely into the manner in which that service is performed; but the transportation business has grown to such colossal proportions that all thinking concerning it must be done in millions, and that means millions outgoing as well as incoming.

Organized competition has reduced the margin of profits nearly to the vanishing point, and in some cases quite beyond it; and the true character of the locomotive has become a matter of transcendant importance. Research in this subject has two distinct aims—first, to find, if possible, a more economical motive-power than the steam locomotive; second, to secure immediate economy by improving it as much as possible while its successor is being developed.

In September, 1891, Purdue University bought an old-fashioned eight-wheeler of the Schenectady Locomotive Works, installed it in a testing laboratory, and carried out with it a long series of experiments, in the course of which fifty thousand facts were accumulated. Prior to this, each locomotive builder was apt to construct his engines the way he thought they ought to be built.

If they did not give satisfaction, he built the next lot some other way. If that did not answer, he went into bankruptcy. Such tests as had been made were carried out in a desultory sort of way; and while the results had considerable individual value, no comparisons could be made, and the data gathered was practically worthless to the industry in general.

About the time the test locomotive was installed at Purdue, the American Railway Master Mechanics' Association and the American Society of Mechanical Engineers held a conference, at which it was resolved to cooperate with the university faculty in the experiments. In 1895 the Chicago and Northwestern Railroad established a locomotive-testing plant, while a third was installed at Columbia University in 1899.

The locomotive-testing appliances exhibited by the Pennsylvania Railroad at the Louisiana Purchase Exposition, in 1904, was transferred to Altoona, where a force of sixteen experts are still engaged in testing an average of three locomotives a week. Under such general scrutiny, the shortcomings of the locomotive have been made plain, and, consequently, many of them have been eliminated.

One of the first things done at Purdue was to attach the locomotive to a traction dynamometer so sensitive that a man, by pressing against the pilot with his extended fingers, could deflect the dynamometer needle. It was soon ascertained that, while the engine had a draw bar pull of 12,000 pounds at ten miles an hour, it had difficulty in attaining a pull of 2,500 pounds when running at sixty miles an hour. In spite of all the locomotive-builders can do, the same ratio of speed to power holds good to-day.

Fuel Through the Exhaust.

In endeavoring to find out what became of the coal that went into the fire-box, but did not come out at the drive-wheels, the Purdue experimenters made a discovery that throws a great deal of light upon the frequent and disastrous forest fires in the West and Northwest. With apparatus to catch the sparks coming out through a given area of the smoke-stack, it was proved that fourteen

to twenty-one per cent of the fuel disappears in that form.

Another series of experiments under service conditions on the road showed that from one to five per cent of its maximum capacity was lost by radiation from a well-covered boiler when running at thirty miles an hour, and from two to seven per cent at sixty miles.

One of the most interesting experiments was in the matter of counterbalances. A number of pieces of wire a little longer than the circumference of a driving-wheel were fed between the driver, in the rim of which a small notch was cut to mark the position of the wheel as the wire passed under, and the supporting wheel while the engine was run at various speeds.

Impact of Drivers.

These pieces of wire were visible for an instant as a streak of light as they shot through the air and struck the end wall of the laboratory with violence

An examination of them showed that the driving-wheels were lifted clear of the rail for one-tenth of each revolution when going at high speed, so that the progress of the locomotive was marked by a series of terrific hammer-blows. This was not surprising in view of the fact that the reciprocating parts on each side often weigh a thousand pounds or more, and the counterbalances, as the heavy weights in the wheels are called, three-fourths as much. The wheels often make three hundred revolutions a minute.

Up to 1895, it was thought that a locomotive to haul heavy loads must have small drivers, but it was learned by experiments that the draw-bar pull at the engine's best speed was not reduced by increasing the diameter of the drivers, while the cylinder action was more efficient. The larger-wheeled engines were more economical in coal and water.

The proper size of the smoke stack, the size, shape, height, and position of the nozzle, and a thousand and one little details which up to that time had been executed by rule of thumb, pursuant to the untested theories of individual builders, were accurately determined by scientific experiment.

The knowledge thus acquired has made possible the development from the passenger engine of fifteen years ago, with a tractive force of 15,250 pounds, and capable of hauling a light train between New York and Chicago in twenty-eight to thirty-two hours, into a machine weighing 266,000 pounds, with a tractive power of 29,200, in 1908, and to haul a heavy private clubhouse on wheels between the same points in eighteen hours, winter and summer.

Freight engines have been developed from a tractive power of 25,277 pounds into the monster Mallett articulated compounds, weighing 409,000 pounds, with a tractive force of 98,000 pounds. Such an engine can haul a train of 2,000 tons up a grade of 2.2 per cent and around 10 degree curves. On level track it would haul a train of 175 cars, a mile and a fifth long, if the cars could stand the strain.

Having reached this stage of development, an entirely new set of problems is presented, for the cry of the directors is always for heavier, and, therefore, more economical, motive-power. The limitations imposed by the size of bridges and tunnels have not quite been reached by the locomotive-builders, but the extreme limit of the fireman's muscle has.

The conditions on a locomotive are such that only one fireman can work at a time, and only an exceptionally strong man is capable of keeping these steel monsters hot. By the time he has done this, he is too exhausted to study the fine points of engine-running; so that when his turn to be "set up" comes, he is not qualified to assume the duties of an engineer. This introduces a complication that is of great importance.

Developing Stokers.

Another complication arising from the same conditions is the ever-growing necessity of economizing in fuel and of abating the smoke nuisance. Experts agree that nine-tenths of this depends upon good firing, but when a man is working to the limit of his endurance he cannot do his best work. Besides, there is the other tenth of the problem, for the solution of which some mechanical device must be found.

This matter is becoming so pressing

that, at its last meeting, the Master Mechanics' Association appointed a permanent committee to study the subject of mechanical stokers. Up to the present time, four of the machines for firing a locomotive that have been introduced are regarded as promising, but not as entirely satisfactory yet.

Some of the problems that perplex railroad officials may seem trifling to an outsider who does not stop to reflect that if they were really trifling they would not worry any one. One of these is the temperature of the water used in washing out locomotive boilers.

Saving a Score Engines.

Among the infinite attentions that a steam locomotive constantly requires is a thorough washing out once or twice a week, or even oftener, depending upon the quality of the water used in it. If the boiler is cooled off rapidly, washed out with cold water, and then fired up hurriedly, the result is leaky flues and broken stay-bolts, caused by too violent shrinkage and expansion of the metal by sudden extreme changes of temperature.

Leaky flues drown the fire so that the locomotive cannot pull its load nor make time, thus throwing the whole train service into confusion, delaying passengers, and perhaps causing the loss of perishable freight and furnishing extra work for the boiler-maker.

At last it occurred to some unknown genius to install a plant to heat the water used in boiler-washing. It was found that, while three to six hours were required to wash a boiler properly with cold water, making the necessary allowances for cooling off and warming up, the job could be done much better in fifty-five minutes to three hours with hot water, and that the flues would not leak afterward.

Now, a saving of two hours on each washing for a thousand locomotives amounts to 96,000 hours in a year. It would take twenty-two locomotives to do that much work in a year, which, at fifteen thousand dollars each, would require an investment of three hundred and thirty thousand dollars. When the great Pennsylvania Company has to sell bonds at ninety-six to raise money for needed improvements, opportunities to save little trifles of a third of a million or more a year are very pleasing to the perplexed officials.

But, in spite of all that can be done, the task of handling the nation's commerce has grown almost beyond the capacity of the locomotive. The earliest practical recognition of this fact was when the New York Central planned the reconstruction of its Forty-Second Street terminals in New York.

It was imperative that something better than steam, if such a thing existed, should be found to handle the swiftly increasing traffic. In order to know definitely whether electricity would meet the requirements, the railroad company ordered a full-sized electric locomotive of the best type that the General Electric Company's experts could devise, built a six-mile experimental track at Schenectady, and started the new motor on an endurance run of fifty thousand miles.

No piece of machinery has ever been subjected to so severe a test in the whole history of invention, and no test ever resulted in such a remarkable triumph. Up and down, to and fro, day after day, in summer sun and winter storm, the electric locomotive plied on its six-mile beat like a shuttle in a monster loom, at high speed, at low speed, and all the speeds between, dragging behind it a train weighing from two hundred to four hundred tons, making service stops and emergency stops, and undergoing every conceivable test that could come up under service conditions.

A Grueling Test.

Every detail of performance was observed and recorded by merciless critics, and every legitimate item was charged up against the locomotive. When the last mile of the fifty thousand had been run, it was found that the expense of maintenance had been one and a fourth cents a mile, as compared with an expense of ten to eighteen cents a mile for steam locomotives. Besides, there had been greater freedom from break-downs and delays. Of course, in actual operation this record could not be sustained; but this, in connection with the other

tests, has been accepted as an incontrovertible demonstration that the electric locomotive can haul heavier trains at higher speeds than steam, and with equal reliability and greater economy.

It takes a pretty big steam locomotive to develop two thousand horse-power, while electric locomotives are built of three thousand four hundred horse-power, and even more. Besides, two or more electric locomotives can be coupled together and operated as a unit by one man, to haul just as large a train as the draft-irons will hold together.

An electric locomotive will develop its full power at the maximum speed for which it was designed, which means that it can haul a full train up grade at the same speed as on the level, instead of crawling up at five or six miles an hour, and perhaps doubling the hill at last, as a steam locomotive does.

In the New York Central tests, an electric locomotive weighing ninety-five tons, of which seventy tons were on the drivers, was able to exert a draw-bar pull of 35,000 pounds up to thirty-five miles an hour, the speed for which it was designed; while a Pacific type steam locomotive weighing one hundred and seventy-one tons, of which seventy tons was on the drivers, could exert a draw-bar pull of only 30,000 pounds at twenty miles an hour, 19,000 pounds at thirty miles an hour, and but a beggarly 16,000 pounds at thirty-five miles an hour. Thus the adoption of electric-power would do away with the necessity of spending millions to reduce grades, as all the roads that could raise the millions have been doing for some time past.

Buying Water-Power.

From thirty to fifty per cent more traffic can be handled on a given road by electricity than by steam. The cost of electrical equipment is only a fraction of the cost of the additional tracks which would otherwise be necessary.

The problem of bad water, which is making so much trouble for the steam locomotives, and causing great expense to the railroad companies, has no terrors for the electric locomotive, for it uses no water except at the generating station beside some mountain torrent hundreds of miles away. Finally the increase of tractive-power makes possible an increase in traffic capacity, thus reducing running expenses.

The significance of the showing made by the electric locomotive under elaborate tests may be better appreciated when it is known that very soon after the fifty-thousand-mile endurance run was completed at Schenectady, the New York Central secured, by purchase on long-term lease, rights to 580,000 electric horse-power at Niagara Falls, part of which is already developed. A hydro-electric plant of 180,000 horse-power is now being installed on the St. Joe River, in Idaho, to operate trains on the Pacific extension of the Chicago, Milwaukee and St. Paul. A power-plant of 140,000 horse-power is being installed on the Feather River, in California, to operate the mountain division of the Western Pacific, while the Great Northern is now operating its trains through the noted Cascade tunnel by electricity.

Millions of Horse-Power.

All these facts, taken together, would seem to indicate that the great problem of motive-power for the railroad of the future is regarded, in some quarters at least, and under certain conditions, as pretty well settled.

Not all railroads are in reach of Niagara Falls or the magnificent water-powers of the Cascade range, but there will be no dearth of cheap power to keep their electric locomotives going, for all that. As the most effective and economical and, indeed, the only effective way to control the flow of the Ohio and Mississippi to prevent the millions of dollars' damage those streams do during their annual floods, and to provide the improved water-ways so widely demanded, government engineers say great storage reservoirs must be built on the headwaters of navigable streams and their tributaries.

In doing this, untold millions of horse-power will be developed—enough to take care of any conceivable increase in the manufacturing and transportation of the future.

Full Speed Ahead.

East and West the Railroads Are On the Job of Laying Lines and Increasing Facilities for Carrying the Nation's Booming Commerce.

A NEW freight depot is contemplated by the Pennsylvania at Allegheny City, Pennsylvania. The company plans to lay out approximately three and a half million dollars on the work.

THE Chicago, Burlington and Quincy has ordered five thousand tons of Bessemer rails from the Lackawanna Steel Company. This order is in addition to five thousand tons which the road recently ordered from the Indiana Steel Company.

THE Raleigh and Southport Railway has purchased a tract of land at Raleigh, North Carolina, on which the road plans to build a freight yard, round house, repair shop, and freight depot. The total expenditure will amount to about forty thousand dollars to fifty thousand dollars.

AUTHORITY has been granted for the construction of one hundred and fifty miles of block signals by the Baltimore and Ohio for the line between Hicksville, Ohio, and South Chicago, Illinois. The work of installation will commence at once. Three-position upper quadrant signals will be used.

THE following signal and interlocking installations are planned by the Santa Fe for the coming year: At Joliet, Illinois, two electric interlocking plants will be constructed, one at the north end and one at the south end of the yard. Both of these plants are joint with the Chicago and Alton.

THE Baltimore and Ohio has awarded the contract for constructing a pumping station at its Locust Point yards, Baltimore, Maryland, to Edward Brady & Son, 1109 Cathedral Street, Baltimore. The structure will be one-story high, 42x55 feet, and of brick and steel construction, with a slag roof and steel rolling doors.

ON August 23 the Pennsylvania Railroad asked for bids on improvements to be made at Greensburg, Pennsylvania, which will cost approximately one million dollars. Two additional tracks will be built through Greensburg, a new station will be constructed, a tunnel will be removed, and the grade of one per cent will be cut down one-half.

THE Oregon Railroad and Navigation Company has placed an order with the McKeen Motor Car Company, Omaha, Nebraska, for two 55-foot, all steel, 200-horsepower, 75-passenger, gasoline motor-cars, which makes a total of four McKeen motor-cars on order for this line. Two motor cars for the Maricopa and Phœnix were shipped some time ago to Tucson, Arizona. These are of the 55-foot design also.

THE Chicago, Rock Island and Pacific has ordered the following equipment: Fifty consolidation locomotives from the American Locomotive Company; 500 drop-bottom coal-cars and 500 furniture-cars from the Standard Steel Car Company; 400 flat-cars, 600 box-cars, 500 furniture-cars, and 50 cabooses from the American Car and Foundry Company; 1,000 forty-ton box-cars from the Pressed Steel Car Company.

THE Atchison, Topeka and Santa Fe has ordered one hundred and thirty thousand tons of rails for 1910 delivery. The rails, it is said, will be used largely for the completion of construction work in Texas, and for renewals and replacements on the main line. The Colorado Fuel and Iron Company is reported to have secured twenty-eight thousand tons, and the balance

is said to have gone to the Illinois Steel Company.

AN electric interlocking plant will shortly be installed by the Elgin, Joliet and Eastern Railway at Griffith, Indiana, to replace the present mechanical plant. The machine will be of the type manufactured by the Federal Railway Signal Company, as the contract for the installation has been awarded to that company, and there will be sixty-one working levers. Besides the Elgin, Joliet and Eastern, the Michigan Central, the Grand Trunk, the Erie, and the Chicago, Cincinnati and Louisville are interested in this plant.

THE Central of Georgia is having plans prepared for erecting boiler and tank shops at Macon, Georgia, and will let contracts within the next couple of months for the construction of these buildings. The cost of the structures is estimated at about five hundred thousand dollars. This road recently let the contract for its woodworking and blacksmith shop to G. B. Swift & Co., of Chicago, Illinois. These buildings will be of brick, steel, and concrete construction. The woodworking shop will be 200x80 feet, and the blacksmith shop will be 350x100 feet.

THE following work is authorized for construction during the next year on the Oregon Short Line: Single track automatic signals on the Idaho division, from Reverse, Idaho, to and including Nampa Yard, Nampa, Idaho, a distance of 65.7 miles and from Pocatello, Idaho, to Ticeska, Idaho, a distance of 142.5 miles, and single track automatic signals on the Utah Division, from Ogden, Utah, to Cache Junction, Utah, a distance of 48.8 miles, and from Salt Lake to Sandy, Utah, 12.5 miles. Of this work about one and a half miles will be double track "polarized" signals, and on all of the new construction Union "style B" lower right-hand quadrant signals and the Union "9-C" relays will be used.

THE Spokane and Inland Empire has just completed the installation of a power interlocking plant at the crossing of the Oregon Railroad and Navigation Company at Colfax, Washington. The interlocking machine is of sixteen levers capacity, and has twelve working levers controlling six high signals and six switches and derails. The high signals are slotted. On the Spokane and Inland Empire, which is electrically operated through this section, alternating current track circuit is used, while the gravity battery track circuit is employed on the Oregon Railroad and Navigation. The gasoline charging outfit is located in the lower story of the tower. This plant was constructed by the General Railway Signal Company.

EQUIPMENT orders placed by the Chicago and Northwestern since January 1 aggregate 125 locomotives, 125 passenger-cars, and 7,900 freight-cars. The passenger-car order previously reported as placed with the Pullman Company, amounting to 96 cars, has been increased under option, and now consists of 40 coaches, 20 reclining-chair cars, 15 smokers, 12 parlor-cars, 5 dining-cars, 16 postal-cars, and 17 baggage-cars, all of which are to be of steel construction. Of the freight equipment 4,000 box cars were awarded to the Haskell & Barker Car Company, who also took the orders for 600 refrigerator-cars, 500 ore-cars, and 300 stock-cars; 2,500 gondolas were awarded to the American Car and Foundry Company.

THE Northern Pacific announced recently that its new equipment, upon which the builders have been exerting every effort toward quick delivery, will be received in the near future. The first consignment of cars started on August 24 from the Pullman shops. There will be sixteen standard sleeping cars delivered in the next few days, and these will immediately be placed in service on the North Coast Limited trains. Of this equipment eight of the cars will contain fourteen sections and one drawing-room, and eight cars will contain ten sections, two state-rooms, and one drawing-room. Every device for the comfort and convenience of passengers will be provided in these sleeping-cars, including electric lights, fans, patent ventilators, dental lavatories, and large and commodious toilet-rooms. The Northern Pacific recently received thirteen new locomotives from the Baldwin Locomotive Works, and seventeen more are ordered. They are all of the Pacific passenger type, and those received have been assigned to passenger service on the various divisions. The combined weight of each engine, with its loaded tender, is three hundred and seventy-six thousand nine hundred pounds, the tenders having a capacity of twelve tons of coal and 7,000 gallons of water. The engines have a 22x26-inch cylinder and 69-inch drivers, and they carry two hundred pounds working pressure of steam. They are equipped with the latest improved Westinghouse high-speed brakes. They are capable of an average speed of sixty miles per hour with eight cars.

Riding the Rail from Coast to Coast.

BY GILSON WILLETS,

Special Traveling Correspondent of "The Railroad Man's Magazine."

OVER the sage-brush plains and fertile valleys of Nevada, Mr. Willets goes, winding up in the rose-bordered slopes of that paradise of America—southern California. There he rests for a few days before taking up his interesting journey.

The stories that he gathered for this instalment of his series contain those elements of humor and pathos that make narrative breathe with truth and human kindness. Don't you wish that you could have been with him, boys? Wouldn't you like to have heard the Western trainmen and old travelers spin these yarns? Well, we just guess—"Yes!"

No. 9.—ON THE LATEST DESERT RAILROAD.

Romances and Tragedies Gathered in a Trip Over Ex-Senator Clark's Salt Lake Railroad from the Utah Capital to the Silver Sands of the Pacific Ocean.

"LAS Vegas! Change for Rhyolite, Goldfield, and Tonopah!"

Having given voice to this, Rear-Brakeman Andrews finished his flight through the observation-car, went out on the rear platform, yanked up the protection-door over the steps, and jumped to the sands of the Nevada desert.

I followed him.

"Humph!" he grunted, in a tone that bespoke actual delight in the indignation that was animating his breast. "Look at those shacks composing the burg of Las Vegas. Every time I come through here there seems to be two shacks where only one stood before. And yet Gordon True and Roland Peterson, of the Nevada Experimental Station, say that nothing will grow out here because of the terrible heat.

"I carried both those gents out of here some weeks ago, and they declared that after months of experimenting not a darned thing would grow in this strip of desert except just scrub mesquit.

"But look at those shacks. You can fairly see 'em grow. I tell you, there's an epidemic of fever hereabouts that's going to make something besides shacks grow in a night. They'll tell you there's never been a strike on this Salt Lake Route since Senator Clark opened the show, but I hereby inform you that the biggest strike in the history of railroading is on right in this vicinity right now. And I'm one of the strikers."

No, reader, that brakeman was not crazy. I had known him a whole hour.

and had found him to be perfectly sane. Were it not that I had talked with him ever since eight o'clock I might have believed him a little "off" when he made those remarks while the Los Angeles Limited paused at the Las Vegas station.

Glad the Boys "Struck."

I pulled out of Salt Lake on that train a little after ten the evening before, two hours late. During the night we had made up lost time, and at five in the morning, at Caliente, had picked up Brakeman Andrews and, I think, an entire new crew. And now here we were at Las Vegas, on time, at nine-twenty in the morning.

"THERE WAS AN AMERICAN EAGLE MEASURING SIX FEET FROM EAST TO WEST OF ITS WINGS"

It is no difficult thing for the San Pedro, Los Angeles, and Salt Lake Railroad to make up time, for it runs mostly on the dead level. Passengers bound for Goldfield said good-by, and at nine forty-five, after a stop of twenty-five minutes, our limited pulled away from the shack-growing desert town, and we rolled on over the rails toward California.

Andrews plumped into a big, comfortable chair next to mine in the "observation" and said:

"Yes, siree! Biggest strike ever known on the railroads of the world. It began at Caliente, in this State, just over the line from Utah. While Caliente is still the center of strike operations, more and more railroad men are joining the strikers down the line all the way here to Las Vegas.

"The first man to strike was one of our conductors, Rob Rives. The second man to strike was another of our conductors, Dan Swayze. Then, in quick succession, a lot more of us struck, and me among 'em.

"Queerest thing about this strike is that when Senator Clark, president of the road, heard of it he said: 'Bully for the boys!' And when the Senator's brother, J. Ross Clark, who runs this railroad, learned of the strike he cried: 'Oi, oi! It's great!' And when Douglas White, our literary press man, and all the others at headquarters at Los Angeles, were told that we had struck they chorused, 'Good luck!'

"Bet you never before heard of railroad officials talking just like that when they got wind of a strike among the employees.

"Well, I'll let you in. Conductor Rives was taking a walk in the desert

up near Caliente, when suddenly—he struck. I mean he struck gold. He and his brother at once staked a claim. To-day they are working gold eagles and double-eagles out of an ore-body six feet wide and a hundred feet long.

"Then Conductor Swayze got busy up in that region, and they say he's got a claim that'll run something like five hundred dollars to the ton. The conductors went right on railroadin' while others worked their claims for 'em; but the later boys to strike in the same way quit their jobs and went to workin' their claims themselves. These new shacks growing here at Las Vegas belong to various strikers who've quit railroading.

"Now, as I say, I'm one of the strikers myself—got a fine little claim of my own staked out up by Caliente. There's some forty of us strikers now who are spreading that epidemic I spoke about—an epidemic of gold fever.

"We're all going to be John Mackays and other kinds of millionaires pretty soon. And what I say is, that for once in the world the most remarkable strike in the history of railroading is now on on this railroad. And what I add is, that it's the *right kind* of strike."

Andrews sat gazing at his gold-bearing bonds that lay hidden in the sands of the desert, and then continued:

"I ain't dreamin' all I'm tellin' you. We had a sign from heaven only last week that shows us all we're going to win the strike good and big. Know what the sign was? Well, it was an eagle captured by two of our telegraph operators up at Crestline station, on this road, almost plumb on the Utah-Nevada line.

Caught a Real Eagle.

"I know those two operators well, and I ain't fooling you. They are Warren Stains and Elbert Gilbert. They set a trap for coyotes, and in the morning when they went to look at the trap, there, caught fast, was an American eagle, measuring six feet from east to west of its wings.

"They put that eagle in a big cage outside the Crestline station, and when we strikers hit Crestline, Stains and Gilbert came out and said:

"'Boys, you struck the gold, and we coined the first eagle.'

"That's why I call that a sign from heaven. We're all of us going to have eagles galore around here pretty soon, and we're going to clip their wings just so it can't be said of us that our riches had wings.

"That reminds me of George Travers, a man who put in his railroadin' days on the Southern Pacific out of Ogden and toward Sacramento, and who at last struck just like we are striking now, and struck it rich, too. He combined railroadin' with prospectin', and when he struck he chucked his job on the Espee and went down to Kanab, hard by the corner where Nevada and Utah and Arizona meet.

Plain "Mary Darling."

"George went to Kanab because he was sweet on a girl down there—the adopted daughter of Oscar Powers, ranchman. And in that sweetness of George on that girl—her name was Mary Darling—there's a story for you that's got fiction beaten to a frazzle. It's a regular Shakespearian tragedy, I tell you, with self-sacrifice and all that sort of thing.

"George Travers, ex-railroader, was riding the desert near Kanab one day, when he came to a water-hole by which lay a female in distress. She was in distress because her horse had stepped into a hole and had thrown her and fallen on her with pretty much all of his weight.

"Travers promptly picked the female up, loaded her on his own horse, then led both horses in a bee-line toward the ranch of Oscar Powers. Before loading the girl on the horse, I forgot to say, Travers tried to revive her by throwing water on her face, but she persisted in remaining unconscious.

"On the way to the Powers ranch, however, the girl came to, and Travers said: 'What's your address?'

"'I'm Mary Darling, and you are taking me to the right address,' replied the girl.

"'That sounds like a book-name, Mary, darling,' says Travers, with a little emphasis on the darling.

"Well, it weren't many weeks before

Mary Darling became to George Travers just 'Mary, darling.' You simply couldn't keep him away from the Powers ranch. And I allow 'Mary, darling,' was glad he just couldn't stay off the place.

"So Travers at last suggested to Oscar Powers that he marry 'Mary, darling,' and that the daughter cleave to him at his own shack, just beyond Powers's barbed wire.

Poor Mary Weeps.

"Acceptances and congratulations all round, and George Travers rides off to town to secure a license.

"The next afternoon Travers returned. Instead of galloping up to the corral with an 'Oi, oi!' and a 'Yi, yi!' from his lusty lungs, he rode up with all the air of a rejected suitor and a dejected man. A family conference followed, at which Travers told the news that had fairly taken the heart out of him. And long before he could finish what he had to say, 'Mary, darling,' hurried to her own room to weep her heart out.

"What was the matter? Just this. Mary had Indian blood in her veins, and never knew it till that day. Her grandmother was a Piute. Oscar Powers knew of the blood, but never told Mary.

"He took her when she was a little baby, called her just Mary instead of using whatever her Indian name might be, and finally 'Mary Darling'; and that's how she came to have a name that sounded to George Travers like a book-name.

Obliged in Mexico.

"Well, what do you think Travers did? Shoot himself like a lovesick swain? No. Not just at that time. He went to 'Mary, darling,' and to Powers, and said something like this:

"'Under the law of this State they won't let a white marry an Indian. They won't give me a license here. But I know where they will let folks of different races hitch up together—and that's Mexico. I'll go to Mexico and prepare a home for 'Mary, darling,' and then I'll come and get her and take her there and we'll marry. Why, look at her! Who'd ever know she's a Piute? In face, form, and manner she's a white. If she's good enough to be your adopted daughter, Powers, she's good enough to be my wife. I'm off to Mexico.'

"And southward rode George Travers. He hadn't been gone a day, however, when a terrible thing happened. Mary was missing. Powers and his ranch-hands searched the desert roundabout till they came to that water-hole where 'Mary, darling,' and George Travers first met. That time Mary lay there in distress.

"There they found Mary no longer in distress—she would never know distress again. Around her throat, knotted so tight that they had a hard time undoing it, was a red silk bandanna which George had given her. Pinned to her waist was a note in which she asked George to forgive her, and saying that she would not let him sacrifice himself for her, adding that if she married him all his friends for the rest of his life would point to him and say 'squaw man.'

Thinks He Slept Too Much.

"And that note was all of 'Mary, darling,' that George found when he returned from Mexico to claim her as his bride."

"And what became of Travers?" I asked Andrews, for he had come to a dead stop.

"They found him weeks later," answered Andrews, with a nervous laugh, "lying at that same water hole, with a bullet-hole in the center of his forehead."

Brakeman Andrews now reverted to his pet subject, the "strike." And while he was still discoursing on the achievements of his fellow "strikers," we were joined by the queerest and most interesting man on that particular limited.

He was Mr. Darius Darius, Mormon, aged seventy-two, bound from Salt Lake to Los Angeles on a pleasure trip. He was tall, and leaner than any famine victim. He had the baldest head I have ever seen on a human being. His ears stood out from his head like the handles on a vase.

He helped build the Central Pacific westward from the Salt Lake end of the line, knew C. P. Huntington and Leland

HE WAS MR. DARIUS DARIUS, MORMON, AGED SEVENTY-TWO.

Stanford and Artemus Ward, witnessed the driving of the last spike in the completion of the Union Pacific at Promontory, Utah, where that line joined the Central Pacific, and was present at a similar celebration a few years ago when Senator Clark's new Salt Lake Railroad was completed across the desert.

I had met Darius Darius the evening before, at the Salt Lake station, when for two hours he regaled me with early-day and latter-day stories of the railroads of Utah, and even got off his little joke on the Latter-Day Saints.

"Going to bed?" he asked, just as I was about to make for my berth. "See here, young man, we sleep too much. I'm seventy-two years old, and I've passed twenty-four years of my life either in my bed at home or lying asleep on the ground in a railroad construction camp. Come outside and smoke."

He hopped off the car with the sprightliness of forty-two. We lighted up.

"I'm one of the Utahns," he said. He never referred to himself as a Mormon, but always as a Utahn. "I knew Artemus Ward. Artemus came to Salt Lake to deliver a lecture. He issued tickets to that lecture that he thought read like a joke. I've got one of those yellow bits of paper at home now. It reads: 'Admit Bearer and One Wife.' How old are you? Thirty-nine? Well, you've been asleep thirteen years of your life. It's too much.

"Why, do you know," he added, "I was a passenger on a train over this Salt Lake Railroad last June [1908], to Provo, Utah. We had thirteen hundred passengers aboard, average age seventy-three, and a total representation of over *ninety thousand years of life*. And, by George, those passengers had been asleep *thirty thousand years!* Think of the wasted energy."

I asked Darius Darius how it happened that a train carried so many old people.

First Old Folks' Day.

"It was a free excursion given to the old folks of Salt Lake—the pioneer Utahns—to Provo. Senator Clark and his brother, Ross Clark, ordered a train of twenty coaches and two engines to be placed at our disposal, free of charge.

"Then the old people were invited to be at the station at 7.30 A.M., as the train was to leave at eight. As the result of the efforts of a committee of railroad men of this line, the oldsters arrived decked out in a fashion by which you could spot a man's age the moment you laid eyes on him.

"All persons between the age of sev-

enty and eighty wore a red rosette. Between eighty and ninety, a blue rosette. Between ninety and one hundred, a white rosette. Over one hundred, a golden star. And if you were under seventy no money could get you on board that train. As I was only forty-eight years old, I refused to wear any rosette."

"I don't understand forty-eight," I said.

"Look here," he answered. "Didn't I tell you I've been asleep twenty-four years. Very well, then. I have been awake only forty-eight years, and you can put that down as my real age. But, seriously, Old Folks' Day is an institution in Utah; and, as it originated in the brain and heart of a railroad man thirty-three years ago, I want you to tell your railroad audience about it.

"A railroad man named John Young, general manager of the Utah Western Railroad, started this old folks' excursion scheme back in May, 1875. The Utah Western ran only from Salt Lake City to the shores of Great Salt Lake; but, all the same, John Young thought his road a wonder.

"He wanted the pioneer Utahns to see what a railroad was like. He insisted upon giving them a free ride to the lake, where he could entertain them all day as the guests of his road. So he invented the colored rosette and golden star idea, and got a train-load of two hundred and fifty passengers, all over seventy.

The Golden-Star Boy.

"I was on hand to see that first old folks' train pull out. It consisted of a baggage-car, seven open box cars, and three flat cars. The only passenger wearing the golden star was Pop Merrill, aged one hundred and one, who lived to dandle the fifth generation from him on his knee, and whose posterity numbered seven hundred human beings.

"From that spring to this one railroad or another out of Salt Lake has furnished a train to carry the old pio-

"THE ONLY PASSENGER WEARING THE GOLDEN STAR WAS POP MERRILL, AGED ONE HUNDRED AND ONE."

neers to some place near by for a free day's outing. The excursion on the Salt Lake route this year was the thirty-third jaunt of the kind, and was the biggest of all.

"When I was about thirty years old—having passed about ten years of that time in sleep—I worked as a railroad construction man on the Central Pacific under Huntington and Stanford. I told the old Utahns how we had a couple of rascals running a store in a rag-town near our camp, and how those storekeepers made money swapping cattle with emigrants.

Kenyon's Cattle.

"I told 'em how those two men would swap one pair of fresh cattle for three pair of worn-out cattle, then fatten up the worn-out cattle and sell them to the railroad-construction outfit at a big profit. But one day an emigrant got the best of one of the storekeepers.

"The senior storekeeper's name was Kenyon. In the absence of his partner, one day, Kenyon was approached by a tired emigrant, who said he had two old steers down the road that were all in, but that they could be fattened up, and that he would sell them for ten dollars. Then the emigrant pointed down the desert to where the worn-out steers could be seen standing in the road.

"Kenyon cinched the bargain by immediately handing the emigrant a twenty-dollar gold piece and receiving a ten-dollar piece in change. He said that he would ride down and get his property the next morning.

"Next morning, when Kenyon went after the steers, he found that two dried up carcases had been propped up in the road to look, at a distance, like the real thing. Was Kenyon mad? No. He declared that emigrant to be a mighty smart man. But he swore he'd get his ten dollars back, and so he rode west like the wind till he finally overtook the emigrant and demanded the return of his money.

"The emigrant handed over a twenty-dollar piece. Kenyon gave him ten dollars change. A day or two later Kenyon rode into our camp at the grading and told the story.

"'And to think,' he cried, with terrible oaths, 'that I rode all that distance after that confounded emigrant, just to give him ten dollars more!'

"'How's that?' we asked.

"'Why, both the supposed gold pieces which that emigrant gave me were counterfeit.'

"That brakeman tells me," continued Darius, getting on another lead, "he's been giving you that story of Travers and the Indian girl. Well, this country is full of romances and tragedies of that kind. These rails over which we are rolling is the old Mormon Trail to California. I've traveled this trail when railroads weren't thought of as ever being possible through this long stretch of desert.

"In those days there was a sheriff known all over this country as 'Desert Tan,' so named from the quantity of whisky of that name which he imbibed. One day 'Desert Tan' captured a horse-thief, and with some deputies and other desert rovers proceeded to string up the thief. I don't remember the name of the horse-thief, but I do remember that he had a wife named Kate.

"Kate was a fine woman to look at, but she had the wild, ungovernable disposition of the true desert woman. She loved her thief of a husband, and when he was dragged away to be hung Kate followed close at the heels of the hanging party.

Her Life for Love.

"When they came to a cluster of trees where the ceremonies were to take place it was night, and a dead hush settled on the crowd. Suddenly out of that silence came the soft, pleading voice of Kate, begging 'Desert Tan' to spare her husband. 'Desert Tan' merely shoved her aside, with words that no Christian gentleman would address to a lady. The result was that next moment 'Desert Tan' lay breathing his last under the trees, shot through the heart by Kate.

"'Desert Tan's' pals forgot all about the horse-thief, and turned their attention to preparing Kate for her own end by lynch law. Kate said never a word as they began fastening the loop around her throat, then suddenly she cried:

"'Wait a minute, boys. I'll help you.'

"You see, they had been having trouble getting the rope into place, because of the two heavy braids of very black hair that hung down Kate's back. So, with the words, she brought the braids around her shoulders to the front, out of the way of the men's clumsy hands, and added:

"'Now, I reckon, you can work quicker. I'm all ready.'

"Well, sir, that little act of Kate's saved her life. The men were so impressed by her bravery, pluck, coolness, and lack of fear that they simply could not go on.

"'Take that rope off!' commanded the one who had assumed leadership. 'Now, tie her on her mustang.'

"And when Katie was securely fastened to the mustang they struck the horse a smart clip on the flank, and away he sped with the bravest little woman on the Mormon Trail."

"And what of the husband—the horse-thief?" I asked.

"That coward? Oh, he had escaped—flown while the men were in the very act of putting the loop around the throat of the woman who had risked her life and done murder to save him. She joined him at a camp somewhere just across the line in California, somewhere about the place on this railroad now called Leastalk, told the people there what a low down cur he was, and had him driven out of camp."

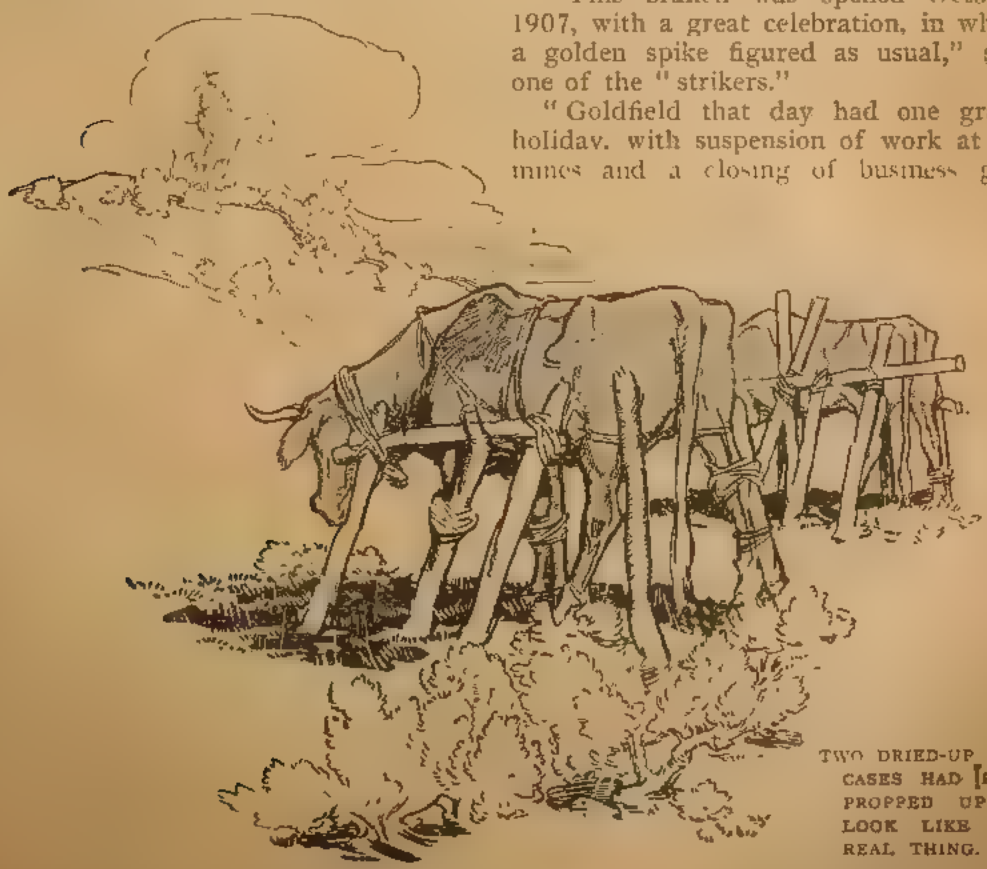
Clark's Golden Spike.

During that twenty-five-minute stop at Las Vegas, Nevada, I talked to two or three "strikers," employees of the Salt Lake Route, who had struck gold at Caliente and thereabouts, though at the time I did not know they were "strikers."

Las Vegas is, as I have intimated, the junction at which passengers change cars to take the new branch line built by Senator Clark from the main line up to Goldfield and Tonopah. It is called the Las Vegas and Tonopah Railroad. It is natural that the "strikers" should have stories to tell of happenings on the branch line.

"This branch was opened October, 1907, with a great celebration, in which a golden spike figured as usual," said one of the "strikers."

"Goldfield that day had one grand holiday, with suspension of work at the mines and a closing of business gen-



TWO DRIED-UP CARCASES HAD BEEN PROPPED UP TO LOOK LIKE THE REAL THING.

erally. Senator Nixon, who was with Senator Clark in the Senate, handled the golden spike after the most approved fashion—the spike itself being made from gold taken out of Senator Nixon's own mine at Goldfield.

"Well, let me inform you that there was revelry by night, participated in by about all the railroad men of Nevada who could get a lay off for the occasion. We just hit things up grand, mostly at the expense of owners and directors and officials of the newly finished railroad.

"During the blowout up comes 'Record' Brady, an engineer out of Goldfield, and Conductor Alley, out of the same place, and Chief Despatcher Nelson, of the same, all being men of the Tonopah and Goldfield Railroad, which line had traffic all to itself into those mining towns till Senator Clark built this branch into the camps.

"'Record' Brady and Conductor Alley and Despatcher Nelson spoke up for a hero on their line that nobody had heard of. The hero was a switch-tender near Tonopah named Peter A. Binger—and he was hero because he was awake at the switch, and then some more of a hero because his heroics never got into print nor were they ever reported by anybody save 'Record' Brady and Alley and Nelson.

"That switch-tender, Peter A. Binger, saved about two hundred lives and a heap of property all by being a man who could let his head direct his hands at the crucial moment.

Awake at the Switch.

"It was this way. Ringer was on duty at the switch. It was near eleven at night, in December, 1906. The point of duty for Binger was at one of the highest places on the railways of Nevada, just outside of Tonopah. It's mountain railroading at that point, all right, and when you've got a double-header passenger-train swooping down the mountain, and a heavy freight coming up the mountain, and both on the same track, you've got to act mighty quick.

"All of a sudden Binger hears Extra 11, the freight, coming up the mountain, calling for the switch. At the same time he sees the headlight of the first engine of 14, the passenger, which was coming down the mountain on a marathon.

It was up to Binger. Fourteen being the nearest to hand, Binger knows that he must set her off out of the way of Extra 11. At his switch was a Y, and what's Binger do but throw the switch, then frantically signal 14 with his lantern to stop, as 'Record' Brady, engineer on the head engine of the passenger, swoops by Binger and into the Y.

"And just as 14 stops short on the straight leg of the Y, the freight dashes by."

One Touch of Nature.

We pulled into Daggett, California, about three in the afternoon, and were held up there about half an hour. From there to San Bernardino and a little beyond we would run over the tracks of the Santa Fe. Consequently, any passengers booked to finish the trip to Los Angeles or San Francisco *via* the Santa Fe changed trains at Daggett.

I made the acquaintance of one of the depot men, who told me this story:

"I've seen it stated in print that railroad conductors are, as a rule, just machines performing their duty, without ever showing that they possess the milk of human kindness, so far as any extra attentions to passengers are concerned, especially when passengers are very poor.

"Let me call your notice to Conductor Moore, of the Salt Lake Route. Only a few weeks ago, when his train pulled in here, his passengers in the Pullmans told me of extra attention which Moore gave to the poorest immigrant passenger—and if that attention of Moore to that poor woman did not indicate human kindness, then there's nothing in life. On the Los Angeles Limited, of the Salt Lake Railroad, was a young mother and her baby.

"They were in one of the tourist cars. Soon after the train left Salt Lake City the baby began to cry most piteously. The mother, seeming very weak, tried to comfort the baby as best she could. All night the baby cried, and all the next morning while the train was running through Nevada.

"When Conductor Moore passed through the train he spotted that mother and babe, and decided that here was trou-

"THE TRAMP SPOKE TO THE WOMAN AND SHE ANSWERED AT ONCE."

ble of some sort that required human kindness. He spoke to the young woman, but she only shrugged her shoulders, not understanding what he said. Moore noticed that the woman gave the child a tiny, hard crust of bread, that the child gnawed the crust ravenously, and that the mother glued her eyes on that crust with a look that could spring only from one who was hungry.

"Moore went among the passengers and requested all who could speak a foreign language to come and talk to the woman. One passenger spoke to her in French, another in German, a third and fourth in Italian and Spanish. But to none of these did the woman respond.

The Timely Tramp.

"At Kelso, California, where the train stopped, Moore happened to see a tramp stealing a ride. Instead of jumping on the tramp with both feet, Moore scrutinized him closely, then asked him if he could speak any foreign language. The man said he could speak Russian.

"Moore hustled him into the tourist-car, and there led him to the woman and the baby. The tramp spoke to the woman, and she answered at once. 'She's a Russian Jewess,' said the tramp, interpreting the woman's words almost as fast as she uttered them.

"'She says she arrived in New York a week ago with plenty of money to join her husband in Los Angeles. She bought her railroad ticket, but before the time came for her to board the train some one stole all her money and her trunk and everything she possessed, except her ticket.

"'She says she determined to start for California and risk starving. She says she has been without food, except one stale loaf of bread, ever since she left New York. She says she is now so weak that she is hardly able to utter a loud word, but that if only some one will give food to her baby she won't mind dying.'

"Hearing these words, Conductor Moore took off his cap and went among the passengers in the Pullman, asking for subscriptions for the poor woman in the tourist car.

"Fifteen minutes later he came back to the woman with twenty-two dollars, and put the money in her lap. Then he took some of the money, went to the diner and bought hot milk and other

things—bought more food than any starving person could possibly eat and survive.

"Told by the tramp interpreter where the money had come from, the woman broke down completely, overcome by the kindness of strangers in a strange land whose language she could not speak. When the train reached Daggett, there was her husband, who had come to meet her.

"The last thing Moore saw, and the last thing the passengers saw, as the limited pulled out of Daggett, was the poor woman pointing to the train, obviously telling her husband of kindness that seemed little less than a miracle.

"'Where were you trying to get when I overhauled you?' asked Conductor Moore of the tramp while the train waited at Daggett.

"'Los Angeles,' was the reply.

"'Well,' said Moore, 'that's one hundred and fifty eight miles, but hanged if I don't let you ride plumb to the Pacific Ocean at San Pedro. What kind of a sandwich shall I bring you from the lunch room?'"

San Berdoo is the railroad man's short language-line for San Bernardino. This is one of the busiest railroad towns in southern California. I had been there on a previous trip, so when my train hit the place some of the men at the station came to me, saying:

"Back again? What? Not stopping over? Going right on to Los Angeles? Sorry! You remember the district attorney here — Dickson? Well, we've nabbed him, we trainmen have."

"Arrested him? What's he done?"

"Arrested nothin'! We've corralled him, and he's in the all-firedest fix you ever heard of. You see, when he got tired of being a good railroader he became a good lawyer, and secured the job of district attorney here. The Brotherhood of Railroad Trainmen elected him to be our head counsel. Now he's drawing two salaries, holding down two jobs, and as a result he's in an awful fix. He's got to resign one or the other of his jobs.

"Why? Well, our brotherhood held a convention at Columbus, Ohio, not long ago, and there passed a by-law making it imperative that our head counsel live at Peoria, Illinois, if he wishes to hold down his job with us.

"And there's Dickson's fix. He loves this California climate—same as all folks who come here from the East. And he hates the chill of the North. The citizens here don't want him to go, because if he does they will lose the best district attorney they've ever had. And our brotherhood doesn't want him to stay here, because if he does we'll lose the best head counsel we've ever had—and there you are. Dickson can't make up his mind what to do."

Just then another trainman joined those to whom I was talking. "You're telling our friend from New York about that Dickson mix-up?" said the newcomer. "But you aren't telling him the latest. The brotherhood has offered Dickson a higher salary than he's getting as the people's representative here—and pleasanter work, too. I reckon San Berdoo won't look quite so good to him now as Peoria, Illinois, does. You see, our brotherhood comes to the Pacific, not the Atlantic, coast for an honest lawyer, and when we find him we bind him to us with bands of gold. All—aa—board!"

Mr. Willets's next article will deal with the romances of the railways of the Golden State and the men who made them.

HORRIGAN'S MEDAL.

BY ROBERT FULKERSON HOFFMAN.

A Hero of the Throttle Wins the Plaudits of a Grateful Public—but Knowing Ones Revolt.

"OH, he's not so bad, sometimes," contended a fireman whose feet were dangling from the idle baggage truck on the Pelaya station platform. "I can carry as thin a fire, with Horrigan up, as with any engineer on the division."

"He's a big wind, and no cyclone-cellar handy!" declared Jim Allen, "and I hope he don't pull me if I'm drawn for one of the specials. He keeps me feeling that things are going to happen soon."

Allen spoke with the fixed belief and deep unction of an experienced conductor measuring up a comparatively new engineer.

"Horrigan has too many things on his mind, and he can't seem to keep them there. He's always slopping over into talk," Allen continued.

"If you were to ask him for a chew of tobacco in the dark at a water-tank, on short time, he'd very likely give it if he had it on him. But, before you could get him to pull out for the next siding, he'd start a lecture on what tobacco does to the solar plexus.

"And if you were to turn hot under the collar and throw out your cud on the strength of that talk while you're trying to get him started, he'd turn in at the next stop and give you facts and figures, world without end, on what tobacco is costing the United States, and what per cent of it's wasted through rough handling.

"Horrigan knows too much, besides running an engine! When I break away from him I always feel as if I'd been grabbed by the neck and dipped in a creek."

Red Jones, the brakeman broke in. "He scares me 'way up into the rocks when he gets talking in full release.

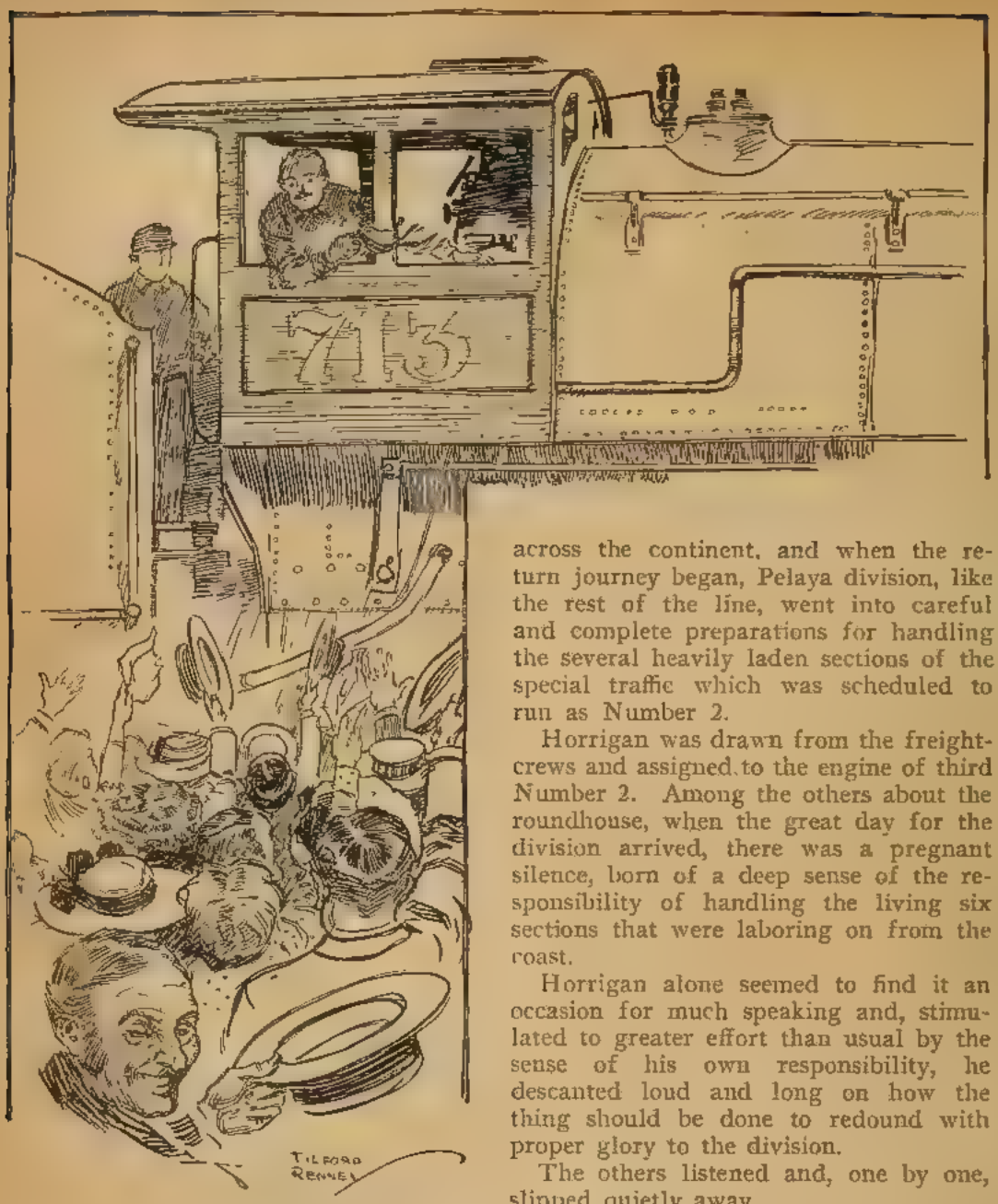
"But he knows engine — don't ever doubt it—and if he pulls us on special, we'll go where the rest of them go. You can bet on it!"

The engineer whom they had been discussing finished his walk across the tracks after leaving the group of talkers, and was humming a happy, nervous sort of nothing in the way of a tune, as he stooped and touched, here and there, about his engine, which was waiting at the coal chutes, just over the way.

Horrigan did not rightly belong on the Pelaya division. This was not so much because he had not been brought up there, although that fact operated as a handicap against him just at first, as it does against any man coming new to the special requirements of the mountain service.

He had been taken on probation, in short, as all men are taken there, and while he had succeeded in weathering the test to the point where he had rights on extra passenger runs, yet he somehow did not seem to belong.

He was a free and somewhat able talker, and seemed to have more than the ordinary predilection for what is commonly called a play to the grandstand. Even that might have passed the broad tolerance of the men of the division had he not possessed the unhappy faculty of injecting into his ever ready speech a vitriolic tang that sent the comfort of common speed glimmering from any conversation in which he engaged and left his hearers with an unreasonable sense of shame for which, however, they never could quite account.



THEY SWARMED AROUND HORRIGAN'S ENGINE, JUST BEFORE THE START, AND CHEERED AND CHEERED AGAIN.

It was to them as though they had been detected in the absurdity of trying to fit a hex-headed bolt into a square counter-sink, and perhaps that was really the trouble. Horrigan had too many angles. He did not fit there.

That was the way matters stood when the Society for the Promotion of Peace on Earth sent some thousands of its members on a well-timed pilgrimage across the continent, and when the return journey began, Pelaya division, like the rest of the line, went into careful and complete preparations for handling the several heavily laden sections of the special traffic which was scheduled to run as Number 2.

Horrigan was drawn from the freight-crews and assigned to the engine of third Number 2. Among the others about the roundhouse, when the great day for the division arrived, there was a pregnant silence, born of a deep sense of the responsibility of handling the living six sections that were laboring on from the coast.

Horrigan alone seemed to find it an occasion for much speaking and, stimulated to greater effort than usual by the sense of his own responsibility, he descanted loud and long on how the thing should be done to redound with proper glory to the division.

The others listened and, one by one, slipped quietly away.

Duly Number 2 trailed down off the mountain-side and came safely to rest in Pelaya. The happy, zealous occupants of its ten coaches swarmed out and cheered to the echo the crew that had brought them safely thus far upon their return.

They cheered as heartily the engine and crew that backed down upon the train to take up the journey afresh, and Number 2 went strongly and gaily upon its way.

When second Number 2 arrived all

this was done again and Pelaya was taking on a quiet exultation at the unwonted celebrity, while Horrigan, with his preparations made, was circulating freely with the throng, shaking hands with the pilgrims, telling them in awe-inspiring periods how the thing was being done and what he, too, was about to do.

The rest of Pelaya, of course, was equally glad, but it was very quiet about its gladness. Pelaya well knew that while there are trains there are chances.

Second Number 2 was well away when third Number 2 came in and disgorged its burden of enthusiasts. They swarmed around Horrigan's engine, just before the start, and cheered and cheered again, yielding at last only to the polite but urgent insistence of the conductor and trainmen who were trying, with little success, to gather them all quickly back into the train. Horrigan's too effusive greetings and responses from the cab-window were holding them.

Finally they reached the climax of their enthusiasm, and as the tide set back toward the coaches their long sustained excitement, their gratitude for safety through many perils but dimly understood, and their longing for definite expression centered upon the well-meaning but too demonstrative Horrigan at the cab-window. The great volume of voices trailed off from its cheering into the dear old hymn of benediction: "God be with you till we meet again."

With that appealing strain "death's threatening wave" wafting to his ears from the train, Horrigan pulled out with third Number 2's ten coaches and with a suspicion of more than usual moisture in his eyes. Horrigan was very far from being a hard man. He was a hard talker, that was all.

Horrigan's present triumph was brief, complete, and, to him, most satisfying while it lasted. He wheeled them away magnificently over the first rise that puts up its resistance beyond Pelaya and began dropping down the long reaches of the Eleven Mile Hill with all of the assurance that careful preparation could give.

His heart was beating high with the warmth of the enthusiasm of which he had unexpectedly become the central object at Pelaya, and he saw himself thenceforth a towering figure in the division annals.

The run ahead held no special difficulties and he let the train soar down in wide, breathless sweeps that brought joy to the hearts of the travelers and keyed him to a keener gladness in his work.

With the throttle closed and the reverse lever latched well down ahead for drifting, he was sailing them, free as an eagle's flight, where he dared, fondling the brake-valve handle and holding them safely, where he must.

Back in the crowded coaches further campaigns of "peace on earth, good-will to men," were being planned. Song relieved the weariness of the long journey.

Then, without warning and from no fault of his, disaster fell upon Horrigan and rudely disturbed the confidence of his passengers in their engineer. Deep down in a vital spot of Horrigan's engine a little detailed fracture had been growing for many months, where no outward search could detect it and no foresight or care defeat its growth.

Close in behind the cellar of the main pin, securely hidden within its fit in the wheel, the little, threadlike fracture had been gnawing into the circumference of the pin.

Little by little, it had eaten toward the heart of the pin until now, with the rods fanning the air in a steely blur of light and the wheels humming in dull monotone in the rushing air, the pin was quivering upon its remaining solid core.

Half way down the Eleven-Mile grade, just when Horrigan had yielded to the temptation of one proud, backward look at the inner side of the flying curve of the train, the overtaxed pin let go.

There was only an instant's crashing jumble of sounds from below, before the roads wrenched themselves apart and the swift stripping of his side of the engine began.

In the next moment the forward working parts broke free with the shattered cylinder and fell in the ditch. The side rod, parted at the middle, began its work of thrashing with swift rotary sweeps the cab and after fittings.

First among these to go were the brake pipes and reservoir, and when the seat-

box went shivering upward in a shower of splinters and tools Horrigan stood upon the deck where he had tumbled without even a chance to touch the brake valve or move it from the lap, where he had set it previously.

With the train-line torn open and the air gone from equilibrium, the brakes went on with an emergency application that set the coaches humping upon their trucks and put in sudden motion a series of wild gymnastics among the passengers.

Before they were fairly untangled from their catapult departures over the tops of car seats the train had ground itself to an abrupt stop. Then they shook themselves out of the tangle and as hurriedly as Conductor Jim Allen had moved to the front at the first jolt they were flocking to the engine ahead of him.

There he found them, rapidly increasing from a bevy to hundreds, close around the damaged engine. Standing erect in the ruins of the cab, the whole side of which was torn off and gone, was Horrigan with his hand clutching the only projection that remained in reach—the handle of the now useless brake-valve.

Horrigan's cap was gone, his blouse was ripped up the back, and there was one bright spot of blood sending down a trickle of crimson upon his cheek where a splinter had grazed him.

He certainly looked the conventional hero, and as the little human eddy of passengers swirled into a constantly widening pool of frightened humanity about the engine, a murmur of admiration rose and grew until it broke forth into ringing cheer after cheer, punctuated with cries of "Speech! Speech! Speech!"

None but a man built upon Horrigan's lines would have thought for a single moment of responding to this hysterical demand under the circumstances. Perhaps not even Horrigan would have done so had he not been frozen stiff with fright and astonishment while the delight of his ovation at Pelaya was still surging in his mind.

The latter, apparently, was the first clear idea to free itself in his shocked senses and, with the entire train's company for audience—all save one lonely figure that shot out from the rear of the last coach and went running up the grade—Horrigan clutched the useless brake-valve handle spasmodically and began upon a stammering speech.

Jim Allen, conductor, thrusting his wiry body unceremoniously through the closely packed crowd, had reached the distorted gangway between engine and tender. He had seized the hand-iron and was thrusting his feet into the step when Horrigan's first halting words sounded.

Allen stopped as though stricken powerless, with his foot in the air, as the monstrous folly of the thing made its way to his quick senses, but only for a single look upward into Horrigan's distorted and painfully working face.

Then Allen's white face went even whiter with suppressed wrath, and he sprang up the step and upon the littered deck and stood tensely with the fireman, close behind Horrigan's shoulder.

He permitted Horrigan to ramble through a few sentences of rather pointless platitudes and, at the first tangible halt in Horrigan's now rapid utterances, he stepped in front of him with a ghastly smile, seized his free right hand in a crushing grip and shook it ostentatiously for the benefit of the intent audience below.

With his back turned to the passengers and his eyes boring fiercely into the eyes of the engineer, he was saying while his grip tightened:

"Horrigan, you fool grand stand player, you haven't done a thing here but roll in luck, and you know it! If you don't cut this out and get down and clean up the pins, so fourth Number 2 can help us down the hill, I'll pound you to a frazzle here on your own deck! Get some tools and get down!"

Then he released his fierce grip upon Horrigan's hand, turned with a strained smile to the cheering audience below and, removing his cap, bowed to them most suavely while Horrigan turned hastily to the tool box upon the tender.

A few moments later both of them, with the fireman, were thrusting the crowd back from below while the broken rods were stripped off and the crippled engine made ready for movement with help from the coming fourth section.

In the few moments that this byplay had occupied, the only man of all the

train's people who had not rushed toward the engine—Red Bill Jones—true to his great trust, had caught up his flag with its dangling sack of torpedoes and was running swiftly to the rear.

Previously there had been nothing to distinguish him in road talk from Black Bill Jones, except the qualifying adjectives of color which the road parlance had supplied. Thereafter, however, he was to be known as the flagman who saved third and fourth Number 2. His opportunity had come suddenly, and he was equal to its demand.

Two train lengths up the wide, curving grade the track was lost from sight in the deep and narrow Spire Cut, and beyond that the swell of the mountain hid it for a mile, down which its fourth Number 2 would soon be bowling.

"IF YOU DON'T GET DOWN AND CLEAN UP THE PINS SO FOURTH NUMBER 2 CAN HELP US, I'LL POUND YOU TO A FRAZZLE."

Red Jones ran swiftly to the Spire Cut, fumbling the while with the string of the torpedo bag, meaning to make assurance doubly sure by setting explosive signals in the cut before running farther in the concealing curve to meet the oncoming section.

Thus absorbed in his double duty, a vagrant wedge of rock caught his foot and threw him heavily from the track upon his shoulder into the ditch.

With a muttered imprecation he scrambled hastily to his feet and, much to his astonishment, fell over again quite helplessly upon the spot from which he had arisen.

A piercing stab of pain shot through his ankle, and when a second effort to rise resulted in a second fall, he examined the offending ankle to find it dislocated and his foot badly awry.

He set his teeth grimly and tugged at the anguished foot as at a boot. It would not right, and he gave up the effort quickly. He crawled back up the ballasted bank of the track and bent a signal-cap upon the rail.

He crept an engine-length and bent another cap upon the rail. Then he began the long crawl upon hands and knees up the grade in the cut with the flag.

The ragged rock-ballast riddled his clothing and bit cruelly into his naked

knees, but he held to the middle of the track with the flag wavering and upended before him, even though he left a dull, irregular trailing stain of blood upon the ballast.

Once he fainted for a moment, with the flag stretched out upon the rail before him and his face fallen among the broken rock. then he came back to the pulsing anguish of his disjointed ankle and crept forward again until he heard the distant whistle of fourth Number 2 at the approach to the Spire Cut.

He stood up then, leaning upon the flagstaff for support, until the black muzzle of the coming engine shot into sight. He raised the flag aloft, waved it in wide and steady sweeps across the track until the deep note of the whistle barked briefly twice in acknowledgment, then he laid the flag carefully upon the rail, spread it to its full length, and rolled over into the ditch, as senseless as the ties bedded in the track.

He was game to the last conscious beat of his heart.

They lifted him to the cab and quickly brought him back to consciousness. They dropped cautiously down through the Spire Cut and coupled in at the rear of third Number 2 and helped them down the hill, while Red Jones lay quietly upon a plank that slanted forward from the fireman's box, in the engine of fourth Number 2.

The kindly members of the Society for the Promotion of Peace on Earth knew nothing of Red Jones or his doings. They were discussing, in subdued tones of gratitude and admiration, Horrigan, the brave engineer who had stood dauntlessly and alone in the wreck of his post and saved them from a dreadful fate—just what they were not so clear on. And Horrigan was a brave man.

So, with this single interruption, the splendid movement of the precious six sections went smoothly on. The day saw Pelaya division well and creditably clear of its great responsibility, and in the days immediately following the respective parts played by Horrigan and Red Jones in the Spire Cut affair became a serious bone of contention.

The whole, bitterly fought, old question of the comparative danger and bravery of the several posts in train service was reopened with a zest and venom that it had not previously attained.

But the subject was wearing itself out and bade fair to subside when a most unfortunate event tore all lacerated feelings open.

There was not a man in Pelaya who did not fully understand that when Horrigan was discovered clutching the brake-valve handle he might as well have been holding the empty casing of a burned-out rocket, so far as the safety of the train had been concerned, and that the almost human action of the wonderful brake mechanism had automatically taken care of its priceless human freight, at the first crash, without any possible assistance from Horrigan.

Horrigan had, indeed, been a towering figure in the discussion. He had found himself strictly on the defensive for once, and having made the best stand he could against the none too gentle impeachment and innuendo which constantly assailed him, there had been times when he was driven almost to the point of unobtrusively leaving Pelaya.

But the saving reaction had come at length, and Pelaya was inclined to leave him to extract whatever satisfaction he might from the situation—and say no more.

Then came the misfortune. Horrigan was sitting on a baggage-truck at the station, one day some six weeks after the Spire Cut doings, talking with returning confidence to a group of road men. Down the narrow stairway that ascended to the superintendent's office, just back of them, a clerk came clattering into their midst.

"See Horrigan around here anywhere?" he asked briskly. "Oh!" he added, as the group opened a little farther and brought Horrigan into view upon the truck.

"Say, Horrigan, the Old Man has a letter up there from those Peace on Earth people, asking him to give you this package and to read these resolutions to you, and give them to you, too, 'In some suitable public place,' the letter says.

"The Old Man says he's too busy and I'm It. Ready?" he asked, handing the sealed package to Horrigan and opening a richly bound and engrossed document.

Horrigan blankly accepted the pack-

"OUR BRAVE AND KINDLY FELLOW CITIZEN, JONAS FARWELL HORRIGAN, DID, ON THE EIGHTH DAY OF AUGUST—"

age and, for the rest of it, never had an opportunity to answer. A shout of wild derision went up and men slapped each other's backs, while they demanded that the clerk proceed with the reading. Horrigan sat and said nothing.

With due identification, dates and preliminaries, the document was opened, and the listeners granted the clerk the courtesy of silence. The reading proceeded:

Whereas—In the course of this, our human life, there are many deadly perils in which men should stand firmly, one with another; and

Whereas—The qualities of human courage and endurance are always to be desired and commended, but more especially in the times of stress and danger, where only the utmost courage will suffice; and

Whereas—Our brave and kindly fellow citizen, Jonas Farwell Horrigan, did, on the eighth day of August, in the year of our Lord one thousand nine hundred and blank, exhibit and employ these admirable qualities in acts of conspicuous heroism and bravery, to our lasting good and gratitude; therefore, be it, and it is

Resolved—That we, a committee of the Society for the Promotion of Peace on Earth, duly appointed and assembled, do herein, this day and date, extend to Jonas Farwell Horrigan the sincere thanks and the undying respect of this association; and it is

Resolved—That a medal of gold, appropriately designed, shall be provided and presented to Jonas Farwell Horrigan, with a suitably engrossed copy of these resolutions; and it is

Resolved—That a copy of these resolutions be spread upon the minutes of this association, in further loving remembrance of Jonas Farwell Horrigan.

The signatures followed in due order, and when the voice of the clerk ceased he handed the document to Horrigan in a dead silence that contrasted sharply with the earlier burst of derision.

Apparently nobody felt moved to laughter. Who could laugh at such a motive, whatever its objective might be?

Nobody laughed. They who listened had almost come to believe in Horrigan's heroism, against their own expert knowledge of the event in question. Horrigan had come, almost, to believe in it himself. He had done what he could—he was reasoning.

"Nothing!" prompted his inner consciousness. He was sitting, pale-faced and with downcast eyes, looking at the unopened package in his hand.

"Open it, Horrigan," said some one very quietly. "Let's see the medal."

He removed the firm wrappings and sprung the little clasp, exposing the beautiful thing upon its cushion of purple. Depending from its richly chased cross-bar was a liberal circle of the solid red gold of olden Rome, and upon its polished face this inscription:

To
Jonas Farwell Horrigan
From
The S P P E.
For Conspicuous Heroism.
August 8th, 190–.

The reverse side bore, in bas-relief, the heroic figure of a man, warding off, with bared and upraised arm, some unseen danger, while a girlish figure cowered at his feet. A trophy fit to commemorate the best endeavor of any man when taken with the earnest message of its presentation. A worthy token, indeed.

That, until the time of his going from Pelaya, was the one occasion upon which Horrigan said nothing. Having fully complied with the request of those who stood about him, he folded his possessions away and, rising, passed thoughtfully up the street, alone.

When he had gone, one of those who lingered, a fireman, ventured the opinion that the deal wasn't so far off, anyhow. Horrigan had stayed with the engine. He was there, ready to do what he could, and a man who had gone through what he had at Spire Cut and come out of it with as good as a whole skin was entitled to all he could get.

But it wouldn't do. They all knew the truth, and the truth would not down. Red Bill Jones was the only hero of Pelaya. It wasn't right, and they liked right first and glory afterward.

Then it began all over again. Somebody hooted from the caboose-track when Horrigan pulled out next day. Somebody laughed when he signed his report upon the work-book at his return.

GAVE AN ORDER AT THE HOTEL DESK AGAINST HIS WAGES DUE.

The following morning found a savage screed of doggerel verse posted upon the freight-house, in the unfolding of which Horrigan was made to suffer by comparison, while Red Bill Jones was lauded.

It crept into the conversation at the hotel tables when Horrigan could not escape and was not directly addressed. He met it by implication at every street-corner, and even saw the reflex of it in the faces of the children in the street.

He bore it, sometimes in fiercely outspoken anger, sometimes in sullen silence, until, looking from his cab-window one evening when just about to pull down into the yards for the start on a night run, he found a four-foot placard staring at him from the wooden face of the chutes.

Evidently produced with much labor and the aid of a marking-brush, borrowed from the freight-house, this is what he saw:

The Eagle Eye stood on the deck,
  The Flagman's hair was red,
That deck was busted, good and hard,
  The brake valve sure was dead.
"Aw, what's the use?" the boys all said,
  "The Flagman was the stuff!"
But the people seen the Eagle Eye
  And never called his bluff.

Nothing very serious, this, in the way of an indictment, and yet it struck so close to Horrigan's own inner sense of the situation that it was the one last straw that he could not bear.

Looking at his watch in white-faced anger, he found he had time to return to the hotel across the tracks. Crossing hastily, he packed into an irregular bundle his few possessions, gave an order at the hotel desk against his wages due, paid his bill and, making his way back to the engine without encountering anybody, climbed aboard with his bundle.

In due time he departed on his run.

When he reached the farther end of the division late that night he silently folded the tent of his tenure upon the Pelaya division, and as silently stole away.

It is likely that Pelaya, in time, might have accustomed itself to the idea of the medal, even though it had never become entirely reconciled. But the engrossed resolutions turned loose the muse of every caboose poet on the line—and every line has a large and prolific lot of them, although they will not all confess.

THE GROWING RECORD FOR SAFETY.

COMPETITION between railroads is a good thing for the public, and it is especially good in the matter of safety. The Burlington road has made a record of which it has much reason to be proud, because during the fiscal year, recently ended, not a single passenger was killed of the many millions who traveled on its trains.

This is a record which equals that made by the Pennsylvania Railroad in the year 1908, says the New Orleans *State*, and indicates that the managers of the various railway systems are giving considerable attention to the safety of the traveling public.

The Interstate Commerce Commission, in its last report, showed a substantial gain for safety in travel, for there had been a great reduction in the number of accidents of all classes; and, while this was admitted to be due in part to diminished traffic on the roads, yet, better discipline, more careful attention to the operation of trains, and the adoption of more safety devices were undoubtedly factors that contributed to the gratifying records made by the roads.

In the last year the activity in many industries has become almost as great as that which marked the days preceding the panic of 1907, for business has been increasing so rapidly that a car shortage is predicted.

Therefore, it is to the credit of the Pennsylvania and Burlington railroads that their remarkable records for safety in the transportation of millions of passengers were made during a period of recovery from panic stagnation, and, therefore, cannot be attributed solely to "lessened pressure and diminished traffic."

Being a Boomer Brakeman.

BY HORACE HERR.

LIKE most members of the Grand Army of Shacks, Mr Herr's hero is always good-natured. He takes his ups and downs in an optimistic, cheerful way, and the world looks good to him even if he is rudely awakened from a much-needed shut-eye, or has just got the worst of it in an encounter with a tallow-pot. And in telling his experiences he can hand out laughs by the dozen.

2.—ON THE SMOKY END.

Payment of Railroad Clerks Is Too Low, but When the Narrator of These Papers Is President of the In and Out, He Will Raise Them 100 Per Cent.

PERHAPS it sounds queer, but all railroads are more or less alike. The conditions which exist on any one of them are fairly characteristic of all. The same book of standard rules is the basis of examinations on all; and if you qualify on the Rock Island, you could probably do the trick on the New York Central or the Mexican Central.

That's been my experience. I've found out that the gaff on the Arizona In and Out was a bit more of a grind than the average road, owing to the fact that it was a mountain road, and wherever you go against the "hog-back" track, you will not be long in getting pretty well acquainted with the broke-in-two sign.

My promotion from the chief despatcher's office came directly after Carl Smith endeavored to break into the stingers' ranks, and in doing so all but broke his neck. Carl was just a common clerk like myself, with a capacity for long hours and hard work, but with a constitution that would have been a discredit to an adult ant.

One evening, as we came out of the office to make the usual trip to the Chino's, I noticed that he was looking more frail than usual; and for a delicate digestive organ there is nothing that will do so much damage as three doses of Chinaman's grub a day for a few months, and Carl was certainly showing the effect.

Three Trips for a Pay-Check.

As we came out of that office, across the track some fifty yards we noticed a big boiler maker carrying a large, generous jag. It was almost the largest jag I ever viewed from the standpoint of a disinterested spectator. We stood and watched him make a crooked straight line for the master mechanic's office.

At the door he met one of the clerks coming out, and, from the fussy conversation which ensued, it developed that he had made three previous trips to the

Began in the October Railroad Man's Magazine. Single copies, 10 cents.

office that afternoon in quest of his pay-check. The boiler-maker was a mighty good sort of a fellow, but that jag he was keeping company with covered him from head to foot, and looked as if it might be the most ferocious specimen ever captured in that neck of the timber; at least, it had a Jim Jeffries disposition; and before Carl and I were really wise to what was going on, a row had started.

The clerk would have qualified in the featherweight class, while the boiler-maker would have tipped the scales at all of two hundred pounds, not counting his booze tonnage. Although the little man gave away a lot of weight, he made a great run for the money, and I'm here to say that he would probably have pulled in on the schedule had not the crowd interfered.

The Arizona Appetite.

It wasn't strict rules, for the clerk just kept beating ragtime on the boiler-maker's head with a brass fire-hose nozzle, till the cupola looked as if it had been foul of a low bridge; and when peace was finally established, there was one head around there that looked like a raw beefsteak, and it didn't belong to the clerk.

That fight got Carl to thinking about what he would have been able to do under the same circumstances. It took all his strength to make a dent in a Chino's bill of fare, and he shortly decided to listen to the boys and try an outside job for a few months, and see if he couldn't cultivate one of those Arizona appetites which makes it possible for a fellow to eat scrap-iron without salt. He went, and I took his place in the train-master's office of the In and Out.

I was interested in his experiment, for the stinger fever was on me, and I was anxious to see how a tenderfoot would get along when against the real goods. Carl's first trip was his last one.

He caught up with Murphy on the first division local—the fellow who said "a local run is a good place, for a student knows what he is without me telling him." The very first trip Carl made after having carried a "dope" bucket

THE CLERK JUST KEPT BEATING RAGTIME ON THE BOILER-MAKER'S HEAD.

until his hand was blistered, after having jacked up cars until his back was tied into a hard bow knot, after having rustled freight for eighteen hours, he had to take a high dive from the top of a refer and land on his noodle, and when he came to he was in the hospital, looking into the face of one of those beautiful nurse-girls.

A Rough-Neck Again.

Going into the terminal, he was standing on the head-end of a refer when the yardmaster, had said that I could have a place on French's crew, and that same evening, before I had had time to draw a switch-key and a badge, French's crew was called, and got out without me. They went East on an orange special, behind Bob Kelley.

I learned in later years just how fast Bob could run thirty cars of oranges behind a tandem compound engine; and if he was living up to his reputation that night, he must have been traveling some when the crash came.

A light extra — two engines coupled

HE SHOT OUT INTO THE COUNTRY, CLEARING EVERYTHING BUT THE BARBED-WIRE FENCE.

train broke in two right ahead of that car, and off he went. By actual measurement, he just lacked one and a half inches of getting the big works.

As it was, his right arm was broken, and the wheels missed his head by a mighty small margin. When I heard all about it, I suddenly became satisfied to push a pencil for a few more months.

However, shortly after that, the ambition to be a rough-neck brakeman came back again, and I asked the boss to put me on the extra board. The day he said he would. I changed my mind again.

It was just like this: Ike Roberts, the together without a train—was coming west against him, and Bob had a string of waits over half the division. The light engines were evidently trying to make Howard for the orange extra, and they would have been all to the good and in the clear if some one hadn't gone to sleep.

Bob was in the clear, all right, as he had the right of track, and so long as he stayed behind that string of waits he could run them as fast as he wanted. I got the story from Bob's own brother, who was firing on the head engine of the light extra, and who took to the tall

timber when he stuck his head out of the cab and saw a headlight poking around the curve.

Bob's brother said that his crew on the light engine had had about four hours' sleep in forty-two. His engineer was all in; and just as they passed the high switch at Howard, the fireman asked him where he was going for the orange train. He pulled out his watch and didn't reply, but eased her off a bit, and the fireman thought he was going to run down to the west switch and back into the clear.

When Three Hogs Meet.

He evidently went to sleep between the switches, and they met about two hundred yards beyond the yard limit board, on a curve where the view was obstructed by a deep cut in a sand-hill. Something funny about these big hogs, they never turn out to go around, so the three big engines got all tangled up. Smith, the engineer on the first engine of the light extra, was sitting with his feet in the cab-window when they hit, and he shot out into the country, clearing everything but the barbed-wire fence along the right of way.

All he got to remember the accident was a badly cut hand, where it scraped the window glass in the cab-window, a few jagged cuts from the wire fence, and his discharge papers. The rest of the crew on the light engine unloaded, as did Bob and his fireman, and no one was killed.

I went out and watched them pick up that wreck. It was a great pile of splintered box cars, twisted iron, and merchandise mixed in. It took four days to clean up the mess, although a shoo-fly was built around it to open the main line in less than ten hours after the accident happened. When I walked over from the wrecking train and looked at that heap of wreckage, I decided again that a clerk's job had its advantages.

Getting Stinger Symptoms.

But this stinger fever keeps coming back on a fellow with an awful regularity, and it was only a few months after that accident that I began to note the symptoms again. Nothing proved a cure; so I bolted the pencil pushing, drew a badge and key, and one night found myself called for the smoky end of Howard Grimshaw's crew, a coal drag, for my first trip.

Ever take the smoky end on a coal drag? Ever eat the cinders from two Baldwin hogs when they were burning Gallup coal? Don't do it; there are easier ways—over the Brooklyn Bridge, or a leap into the Grand Cañon, for instance.

But I didn't realize what I was going against, so I whistled my little whistle, proceeded to the coal-chute track to get my engines and pilot them down to the train, calmly split the first switch I came to, as every student must, and finally had them coupled onto the string, air connected up, and ready for the sign.

A great trip that! Twenty-eight cars of coal, the dirtiest coal that ever blew into the eyes of a student brakeman! We were over on the mountain end of the division, where it is nothing but drag and drag, up and up, until you finally reach the top of the mountain range, and then it's nothing but hold them while you drop down on the other side.

So little to do going up that you get tired, and so much to do coming down that you are half exhausted! Everything went along fine until we reached the divide and started down that sixteen miles of cañon road.

The Tallow-Pot Did It.

If I had known more about railroading, I would probably have unloaded in that old cañon, for the train ran away, got beyond control when we were eight miles from the bottom of that grade, and although the hoghead was squealing for brakes, and I noticed that we were running pretty fast around the corners—the curves are corners on that piece of track—still, I didn't have sense enough to know we were in trouble.

Finally they stopped. The lead engine went onto the ties and plowed up quite a stretch of track; the second engine had every tire slipped, and when the crew came over ahead and began to talk about the narrow escape, I got real frightened.

But it was on the return trip that I pulled off the real patent-applied-for stunt. Braking on the smoky end is no soft snap; and after you have been out over twenty hours, and are unused to the grind, it's only natural that you long for a little shut-eye in the hay.

I remember we had a positive meet order with a train at Bubbard, and going into that station — it was nothing more than a blind siding—I made my way over to the head engine, so that I should be "Johnny at the rat-hole" when we neared the switch.

I climbed down and took up my position in the gangway. It was night, and I was sleepy. The next thing I knew I was experiencing a falling sensation, which ended in a dull, sickening thud and a fierce pain in my left shoulder. From where I lay on the ground, I looked up, expecting to see fire and steam descending on me and box cars coming my way in droves; but, instead, there was the engineer sitting calmly in the cab, with his head against the window-casing, sound asleep.

I picked myself up, hunted around in the dark until I found my lantern, and, anxious to be sure that no one saw me fall out of the gangway on my head and shoulder, started to climb back. Then I realized that I was hurt, for I had no use of my left arm.

I have thought about that little high-dive feature several times since then, and the only thing I can make out of it is that I went to sleep standing there in the gangway while the train was running. I never opened that switch, but it must have been opened, for the train was in on the siding; I suppose the tallow-pot opened it for me.

Better Be Tied On.

Then they pulled in on the siding; and after they had stopped, and there was little danger of me falling off, I just went and did it anyhow. I always thought it was mighty considerate of me to wait until they stopped to fall off, for they didn't have to make a special stop and lose time picking me up. Then, too, I've thought it was considerate of the train, for had I fallen when it was running at high speed, there probably wouldn't have been enough of me left to pick up.

It was about four o'clock in the morning; and as the engineer and fireman were taking a little shut-eye, they didn't see the acrobatic stunt, and I wasn't going to pipe it off to them. But when I dropped off to open the switch at the terminal, I couldn't deliver the goods, as my left arm was useless.

The engineer had to stop, and the fireman climbed down and unlocked her and threw her over, and then I had to tell the truth, and I got mine, all right, all right. After that, John McKenna would always suggest, every time the train stopped, that I had better tie myself on.

Kind to a Youngster.

I took a two-weeks' lay off with that bad shoulder, and in that time the brakeman fever had a chance to recover all that it had yielded to the heroic treatment of rough experience; but when I was again ready to report for work, I had learned that there is some slight danger in sleeping while on duty. I might add that the lesson cost me a great deal less than it has cost other people I have known.

Aside from the fact that the smoky end is always a hard school, my breaking in was easy for me—the men made it so. I had always endeavored to play fair with every one when I was a clerk. I had no favorites, and every time I got a chance to do a rough-neck a favor. I was glad to do it; and I want to say that those favors were the best investment I ever made.

When I got out on the road, taking the ups and downs with the rest of them, the little things I had done for the boys kept coming back to me with interest added, until now I am firmly convinced that railroad men are the most appreciative in the world. When the bunch saw me out to make good, firemen, engineers, conductors, and brakemen would give me suggestions, and often climb down and help me do my work until I had learned the ropes and could tell the difference between a spot sign and a wash-out signal.

I am firmly convinced that railroad

men, as a rule never forget a favor, an opinion which is substantiated by a thousand and one little incidents which came to my notice while following the game up and down the pikes in various parts of the United States and Mexico. I first began to notice it when Engineer Walcott escaped the wreck on 34. The section foreman who prevented that accident went down on Riley's friendship tablet in letters of gold.

After that day, Riley never passed that section but he whistled a welcome; and it was through the engineer that the section foreman was finally given a little trip East—a month's vacation on full pay and transportation over half the continent. I am reminded of a more personal case which illustrates the point.

When I was still a trainmaster's clerk, one morning a fellow came drifting into the office and asked for a job braking. He looked as if he needed a job, and he talked as if he wanted one; and although the extra board was full at that time, I stretched it a point and put him on.

He had a stinger's card and good service letters; and when I put him on the board, I didn't think of it as a favor to him at all. He was called that very night for a local turn-around, and less than twenty-four hours later I helped the boys take him off of Thomas's caboose and carry him into the emergency ward of the local hospital.

In putting a couple of cars of coal on the chutes at a little station up the line, he had fallen between the cars, and one foot was so badly smashed that amputation was necessary. Almost four years later, I—broke, hungry, and out of a job—met him again in El Paso, Texas.

I was running awful light, making slow time, with no provision in the schedule for meal stops. Sam—we'll call him Sam for short—had just been before a Texas court to let twelve men decide what that leg was worth, and he had cashed the member for a little over five thousand dollars. I was standing in a café, making eyes at the free lunch, when in walked Sam, his wooden leg beating a lamentable tune and reminding me of that night when I last saw him.

I WAS STANDING IN A CAFÉ, MAKING EYES AT THE FREE LUNCH.

He knew me in a minute. I was standing there looking like a caboose after a rear end collision and feeling worse; I was all to the rip track. He saw me and flagged me; asked me how I was running; and when I told him that I wasn't pulling tonnage that my flue sheet was leaking, that I hadn't been able to meet myself at the meal table for two weeks, he gave me the spot sign, and we went over in a corner and sat down.

To make the story short, Sam remarked that he would like the opportunity to break even with me on that little favor I once did him out on the Arizona In and Out, when I gave him a job, and with no further remarks handed me five of the biggest five-dollar bills I ever saw. They looked like circus posters. That little favor I did him had cost him a leg, but he didn't figure it that way.

After I got out on the road, braking, a full fledged stinger, I never allowed myself to forget the grind which the railroad clerk is up against when he goes down on the salary-list. I ground away there for about fourteen hours a day for my monthly insult, kept all kinds of hours, and about every month I would decide that it was the call of the stock-car or the empty refer for me, and away.

The railroad clerk of to-day is the hardest worked, poorest paid man in the employment of a great system, and in more offices than one there are sixty-dollar clerks with six-thousand dollar responsibility. I've long since decided that when I am made general manager of the In and Out, the first official move I make will be to raise the pay of every office-man on the system at least one hundred per cent.

In the December issue, Mr. Herr's hero will tell why he decided to "break out" of the game.

INVENTING AS AN OCCUPATION.

FROM time to time our mail brings a woful tale from a disappointed inventor who has devoted a number of years and considerable money to the perfecting of some device which the world has not duly appreciated, says *Machinery*. Many inventors spend years on the development of an idea which to them appears to be of great value. Often, too, they sacrifice the employment by which they earn their daily bread.

It is but natural that the inventor who has thus devoted his time and perhaps all of his savings to the development of a new idea, should be discouraged when he finds that he can realize little or no returns from his invention. As a rule, he thinks that he has been unjustly treated by those to whom he has submitted his idea, and often regards the manufacturer as an enemy because the compensation offered is, from his point of view, inadequate.

In many cases the inventor sees from one view-point only. He has not the advantage of wide experience, and knows little or nothing of the costly organization necessary for marketing goods

Inventing should seldom be considered as an occupation to which a man can profitably devote all his time, except in cases where the inventor's genius is of an extraordinary degree.

The inventors who succeed as a rule retain employment in regular occupations while they perfect their inventions during spare time, the inventions being incidents in their regular occupations, or by-products, as it were.

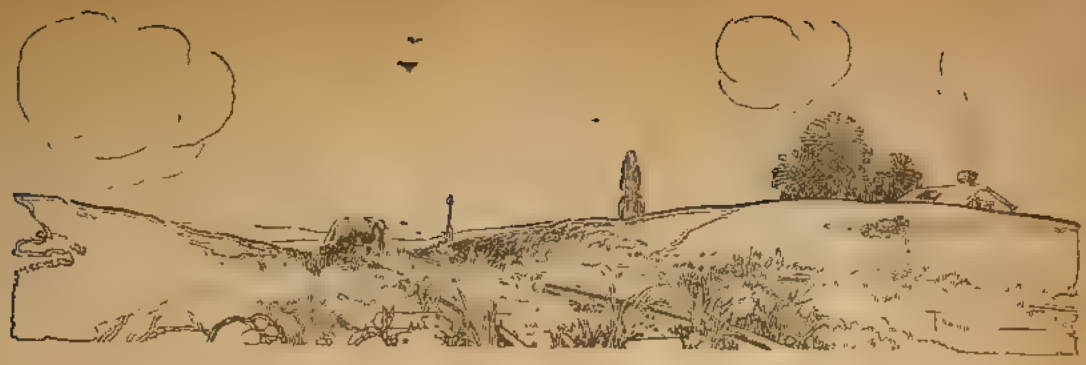
When an inventor works under such conditions he is more likely to correctly estimate the value of his inventions, and not be bitterly disappointed because his inventive genius is not highly appreciated.

A man who has true inventive genius cannot help being an inventor, but he should avoid living in expectation that one brilliant idea will make his fortune and enable him to live ever after free from all pecuniary cares.

The hope of "striking it rich" is a common fault of many inventors. If they must invent, let them content themselves with moderate returns for their ideas, placing each in the best market possible, but not feeling disappointed if a large fortune is not realized from an idea that to the inventor seems very valuable.

Advice is cheap, and is generally disregarded by those who could best profit by it. But, notwithstanding, we cannot help suggesting that inventors of ordinary ability should retain their regular occupations while developing their ideas. They will be happier and their chances for success will be greater than if they give up profitable occupations, hoping to produce something which will make a large fortune.

The trouble is that inventors, as a class, are a somewhat irresponsible lot, to whom a steady job is distasteful. Steadiness of character and genius are rarely found combined in the same individual, and, doubtless much that has been said here will be of little value to the class most in need of advice.



Roll-Call of Veterans.

Some Are Still on the Main Line, Some Are Resting on Sidings, and Some Have Passed the Home Signal and Got Their Clearance.

OLD EMPIRE STATE DRIVER.

Canfield Pulled the Noted Flier Over Her First Run and Many Runs Afterward.

A FAMOUS New York Central veteran was William Augustus Canfield. He ran the first Empire State Express out of New York, and he held the run until his retirement, ten years ago.

Mr. Canfield ran an engine on the Central for thirty-five years. He was chief engineer of the Vanderbilt Division of the Brotherhood of Locomotive Engineers. Since his retirement he has been employed in the Bronx Park, New York City.

At the age of sixty-two, some months ago, a stroke of apoplexy took the old veteran out over the Long Division.

CONSTRUCTION VETERAN.

Brown, a Maker of Ways, in East and West, Has Hit Out on the Unsurveyed Trail.

A PIONEER railroad builder, both in Eastern and Western States, Joseph F. Brown, passed away at Atchison some months ago. Mr. Brown was a native of Ireland. He was a member of a surveying party on the Pennsylvania between Pittsburgh and Greensburg.

He was also one of the contractors in some of the Baltimore and Ohio construction of later times, having, in 1853, a grading contract on that line.

He was prominent in building the St. Louis, Iron Mountain and Southern between St. Louis and Pilot Knob, Missouri, and he also helped to build the Central Branch of the Missouri Pacific in 1858. He was eighty years of age when he died.

A PROMINENT AGENT.

Carelton, of the New Haven, Is High in the Councils of His Order and the Confidence of His Road.

WILLIAM D. CARELTON, agent of the New York, New Haven and Hartford at North Plymouth, Massachusetts, has crowded a wide railroad experience into half a century of life. Besides other distinctions, Mr. Carelton is the grand secretary of organization of the Order of Railroad Station Agents, as well as being one of the charter members.

His first railroad experience was as an operator at Norway, Maine, on the Grand Trunk, and afterwards for the same company at Milan, New Hampshire. At that time the young men of New England were more or less subject to the "Western"

fever, and young Carelton drifted out with the westward tide.

His first position was on the Peoria, Decatur and Evansville Railroad, at West Salem, Illinois. Going farther west, he next landed at Venita, Indian Territory, and worked there as an operator, migrating from there to Versailles, Missouri, where he became station-agent for the Missouri Pacific

About three years later he returned East, bringing with him something he did not take out, namely, a family. He joined the Old Colony road, now a part of the New Haven, and has been with the company ever since.

JUST MISSED PENSION.

Turner, of Illinois Central, Passed Away a Few Days Before Reaching Retiring Age.

A VETERAN of the Illinois Central, Ezra Turner, of Galena, Illinois, died a few weeks ago, practically within a few days of achieving the age for retirement, and after being with the company for over forty-five years. Mr. Turner was born in Maine, but his parents settled at Nora, Illinois, when he was seventeen years old.

He entered the employ of the Illinois Central in 1863, and with the exception of a short period during the Civil War, he had been with the road ever since. Preparations were just being made for his retirement and the celebration of his golden wedding, and a new house was being built for the celebration of the double event. He was suddenly taken ill after doing his usual day's work and died in a few minutes.

OLDEST WOMAN OPERATOR.

Mrs. Harriet C. Williams Retires After Over Half a Century of Memorable Service on the Wire.

THE oldest woman telegrapher in the United States, perhaps in the world, Mrs. Harriet C. Williams, resigned last July, after forty-two years of continuous service, and a total service of over fifty years. Mrs. Williams has held down the post of manager, operator, and messenger at Norwich, New York, on and off, since 1854.

One of her earliest recollections is of sending the returns in the election of James Buchanan, also the news of the firing on Fort Sumter, and the battle of Bull Run. She also telegraphed for lumber to build barracks for troops quartered at Hamilton.

Mrs. Williams is now seventy-three years old. She has suffered for some time with rheumatism in the hands, and this, with her advanced age, has necessitated her retirement.

C. E. BROWN RESIGNS.

Veteran Accountant of the Pennsylvania is Placed on Retired List Because of Failing Sight.

AN event of considerable importance in the accounting department of the Pennsylvania, at Philadelphia, was the resignation of Charles E. Brown, a few months ago. Mr. Brown has been successively with the engineering, transportation, and accounting departments of the Pennsylvania for over forty-two years. He was taken from the active list at his own request owing to his failing sight.

Mr. Brown is a brother of W. H. Brown, formerly chief engineer of the road, and of Theodore F. Brown, assistant auditor of the Union Line in Pittsburgh. He is a veteran of the Civil War. Prior to his removal to Philadelphia Mr. Brown was stationed at Pittsburgh, and his name is known all over the Pennsylvania Railroad system.

OLDEST SUPERVISOR.

Cullen Was the Dean of His Grade on the Pennsylvania Among Employees and Past Employees.

JAMES CULLEN, who was reported to be the oldest past or present supervisor on the Pennsylvania system, died a few weeks ago at the age of ninety years. According to the Harrisburg, Pennsylvania, *Patriot*, Mr. Cullen was not only the oldest supervisor, but was the oldest railroad man of any grade between Harrisburg and Altoona, and the oldest member of the Veteran Employees' Association of the Middle Division.

Mr. Cullen was born in Ireland in 1819. He came to this country in the early forties and began railroading on the Philadelphia and Reading.

He stayed in this employment until 1856, when he took service with a construction contractor on the Pennsylvania. Soon after he was taken into the force of the railroad as an assistant foreman of subdivision. He held his last position of supervisor from 1860 until 1899, when he retired

TREASURE OF THE WORLD.

BY STEPHEN CHALMERS,
Author of "The Cataclysm," "A Daughter of the Armada," etc.

Pigs Inhabit a Treasure-Chamber and a Queen Comes to a House of Gold.

SYNOPSIS OF PREVIOUS CHAPTERS.

PHILIP SAND, being informed that he has a year before tuberculosis will claim him as a victim, prepares to get the best out of the time. Being financially ruined he raises ten thousand dollars on his life insurance policy of fifty thousand from a money-lender named Merton Scraggs, who opens up on the comfortable promise that Sand will not be living that day a year. He charters a yacht to go treasure-hunting, sends the yacht ahead, and himself goes down on the regular liner for Panama. On board he meets Miss Verina Harding. They are wrecked.

CHAPTER V.

The Irony of Fate.

QUEER it is to think of a man down under the sea, *laughing!* Yet that is what Philip Sand was doing as the great waters closed in around him and he felt himself being drawn deeper and deeper in the booming darkness. He was smiling broadly at his own thoughts.

The main thing that occurred to him in an amusing way was the luck of Merton Scraggs. At the very outset of affairs the old skinflint was likely to reap his one hundred and fifty per cent.

Dr. Lauriston also flashed before Philip's alert faculties. Another prophecy gone wrong—at least, the spirit of it. He wondered, as he whirled about in the breathless undertow, how many doctors' prophecies went wrong in similar fashion?

It proved to Philip that he was quite right not to have taken Lauriston's earnest advice that he go to a sanatorium and "take the cure" in a reclining chair for a year. Life had seemed such a chancy thing to Philip just then. What was the use of going to a sanatorium to be cured when, the cure effected, the patient might meet a speeding automobile, or be killed in the very train that was taking him back to life and usefulness.

Fate, however, was on the side of Lauriston this time. Fate was not going to upset this particular prophecy of the gloomy doctor. Philip was to be reserved for his just deserts at the appointed time. For the present, Fate merely whirled the young man around in the sea for a prolonged half minute, then brought him to the surface.

Philip could swim. The first thing he became cognizant of was the cold air blowing upon his wet face. Then his opened eyes were attracted by a streak of light which flashed up occasionally between the waves. Dawn was breaking in the east.

Either the steamer had foundered or her lights had gone out, for around the swimmer darkness was upon the face of the waters. He could see nothing; but he could hear a great deal—the roaring of the sea breaking over rocks with a broad snarling—"A-a-a-ah!" And once he thought he heard a long, gurgling cry.

At intervals he collided with floating objects in the water. One of these Philip

seized, hoping to find a spar or a life-buoy; but it proved to be a man, who attempted to seize him.

Philip wriggled free. He was willing to help, but not to sacrifice his life uselessly.

"Lay one of your hands on my shoulder!" he shouted above the storm

There was no answer. He swam forward a few strokes, to right and left, hoping to find the drowning man again; but, apparently, he had gone down.

Once again Philip thought he heard a cry, and a second later he heard voices raised in loud talk.

"They must be in a boat," he reflected, and next moment he hailed as loudly as his almost exhausted lungs would let him.

No response came, although Philip still heard the voices. They were presently lost, and silence reigned upon the ocean save for the snarling of the breakers and the melancholy dirge of the wind.

Then a feeling of desperation seized him. He was alone on the sea. It was still too dark for him to see any distance around him. He might be near land, or he might be twenty miles from it. Twenty miles! Even the possibility of *five* staggered his brain.

He struck out in the direction of the dawn, keeping the reef to his right. Perhaps the island was behind the reef. It was his only chance. He could have swam to the reef easily enough, but that would be courting death.

All at once Philip Sand had forgotten his deep-sea amusement, and life was the most precious thing in the world. His whole faculties were centered on that one thing—life—and he meant to give it up hard.

His arms were aching, and his breath was jerky and short. It flashed into his mind that he had a poor pair of lungs for such a strenuous battle, but still he was not discouraged. He would fight for life to the last heart-flutter; and there in the roaring sea, as he struggled against terrific odds, it seemed to him that Merton Scraggs was whispering in his ear:

"Life is sweet, Mr. Sand—even to me."

Slowly the light in the east spread. A little to the right, ahead of the swimmer, arose a low cloud. Was it a cloud? It might be land, but it was as yet too dim and shapeless for the eye to determine.

Like a man clutching at a straw, he swam toward it, wildly at first; but presently he steadied his stroke, for there might be a chance, and he must conserve his forces.

It seemed fully an hour before the light convinced him that it was land. In reality it was about ten minutes before the cloud took the shape of a soft round hill, whose base was clustered with trees and palms. It was like some dim oasis in a desert of water, and across it lay fine strata of mist.

By this time Philip was in the last stages of exhaustion. He was seized with an irresistible desire to cough. He did, and swallowed a mouthful of salt water that irritated his throat and lungs still more.

He raised himself in the sea and trod water until the paroxysm had passed. Then he swam again, a hard smile on his face. That was the fatal cough. Below were the fatal waters. Yet he would fight.

"Life is sweet, Mr. Sand—even to me."

The shore came nearer. Presently the tumbling sea became quieter and seemed to breathe mightily but steadily. If he could only last five minutes longer, he would be safe.

But his arms refused to obey his will. His strokes became feebler, shorter, and slower. He felt his body sinking lower in the water. Several times he lifted himself in an effort to keep his nostrils above the surface. No longer were his limbs moving in accord. They were feebly swaying, independently of brain control.

A mist began to gather before his eyes. He fought it off and struggled forward. Again the mist, and now a fog in his throat. Then he was choking, with his lungs full of salt water. He felt his brain reel and his whole being sink into red blankness.

The last thing he knew was being lifted, as it seemed, on the wings of the wind, carried up to a great height, and flung down — down — down! Then his body struck against something. Again

he was being lifted up, and again he was flung violently to earth.

"I've been washed ashore," he reflected semiconsciously. "I'll be all right if I don't die of exhaustion."

Then he fell asleep.

Philip next felt very uncomfortable. His nostrils were filled with the stench of sun-baked seaweed. His back was very hot, and his feet very cold. Also, there was a continuous rustling around him, and things ran across his face.

He opened his eyes and promptly shut them again. The sunlight hurt. In a little while he became used to the strong light. Then he sat up, stiffly, and looked around.

He was lying on a beach, with the sea lapping around his feet, and sometimes driving foam right up to his waist. About fifty yards up the white beach there was a long fringe of coco palms, ending in a pile of rocks to the east, and another pile to the west. That was all he could see of the land to which he had been washed.

He looked out to the sea, and then his memory returned in full force. The Revuelan had apparently gone down, for there was not a sign of her. He looked over the face of the ocean, then his eyes roved the length of the beach. There was a quantity of wreckage at the tide-mark, but not a sign of a human being.

Was he the sole survivor? It looked so. All at once Philip's heart and mind were clouded by a great sorrow. All at once the ship's company seemed to parade before his inner sight. They were all drowned — the complacent Captain Rodgers, the asthmatic planter who would no longer worry over the tariff; the voluble "Cattle Prince," and the quiet Englishman who found his ideas "most interesting." The pitiful Higgs was drowned, too; and poor little, old Miss Sharpe, who would never again utter her prim, reproachful—"*Verina!*"

Yes, and Verina was drowned, too. It seemed impossible that that beautiful creation of God should be as—should be as dead as Higgs. It did not seem fair, somehow, that they should suffer a common fate. Yet it seemed true enough that drowning had been the common fate of all but Philip Sand.

"The ways of God *are* inscrutable," said Philip to himself, with a queer laugh.

He was thinking of all that ship's company gone to death, and he alone—Philip of the mortgaged life—the survivor.

By and by he arose and staggered, rather than walked, to the fringe of trees. Again he sat down, this time with his head and shoulders in the shade of a coco palm and his legs in the sunlight, that they might dry.

Where was he, anyway? It was all so new to him. The sand of the beach was unlike anything he had ever seen. There were brilliantly colored lizards and queer-looking crabs running about.

The inshore waters were a beautiful opal shade. Farther out, the sea was green; then indigo-blue, and close to the shore it curled its lips and showed startlingly white teeth.

He looked up at the tree above him. Its slender stem arose and curved outward without a break or a branch until the crest was reached. There it burst out in a great rosette, in the heart of which were clusters of big, shiny, green globes.

"Coconuts," thought Philip.

The breeze rustled through the palms, and presently a big, dried nut fell at his feet with a startling thud. He drew a penknife from his pocket and tried to cut the husk off, but it was too hard.

"Perhaps I could get a green one," said Philip to himself.

He got up and walked with difficulty along the fringe of palms. Presently he found, as he had expected, a green nut which had yielded to the previous night's storm. This nut he pared at one end with his penknife. Presently the nut gave a hiss, and a little spurt of fluid came from it. The knife had reached the soft, half-formed inner shell and pierced it.

He put the little hole to his lips and drank. The milk was sweet and fresh, and almost as if it had been carbonated. It contained an amazing amount of fluid.

The first thing to do was to find out, if possible, where he was. He remembered the captain's chart of the day before, and tried to trace the probable course of the vessel. The gale had been from the northwest.

Castle Island light had not been sighted on the port side. Probably the Revuelan had gone out of her course to the southeast before the northwest blast. In that case, Castle Island light might have been lost to starboard.

If that surmise were correct, then this island was probably one of the Inaguas, which had appeared to the southeast of Castle Island. It might even be one of the Turks Islands, if by chance the Revuelan had escaped grounding on one of the greater islands.

Philip remembered the soft, rounded hill in the center of the island, as he had seen it in that terrible dawn when everything had been indelibly stamped on his senses. He entered the fringe of vegetation and struck inward and upward at right angles from the beach.

In about half an hour he came out of the belt of jungle and found himself upon a gentle decline. It was the hill. It was bare of vegetation, save for a hardy form of wiry grass. Rocks were numerous, and sometimes he had to clamber up a steep bluff; but the hill was low, and in a short time he stood on the summit and looked around him.

He could see the ocean on all sides. The first thing that attracted his attention was a brown, sandy-looking island about five miles to the east of the one he was on. Presently he descried other islands farther off. In fact, the entire horizon was broken by the crooked outlines of barren, sandy islets.

His own island differed from all the others in that it had a belt of luxuriant foliage all around it. Through this, at intervals, he caught a glimpse of the white beach and the breakers. So far as he could make out from the hilltop, there were no houses, no sign of human beings or human habitation.

His expedition had cheered him. That his island was not remote, and was one of a group not a hundred miles from the regular track of West Indian and South American steamers, was a consolation.

It even was possible, too, that the Revuelan's company was scattered over these islands. He remembered that there had been at least one boat launched before the steamer foundered, for he had heard the voices in the darkness. People struggling for life in the sea would hardly have carried on a lengthy conversation.

"The next thing," said Philip, addressing himself, "is to find a shelter for the night."

He descended the hill by the way that he had come. Passing through the belt of jungle, he curiously examined many strange trees. There were many brilliantly colored but oddly shaped fruits, none of which he cared to sample.

If he had only known that the big, green cannon-balls which he turned over so curiously were breadfruit; had he known that the sticky, turpentine smelling, oval apples which strewed the ground were mangoes, or that the yellow, cheesy-odored things were exquisite cashews, he might have worried less about starvation.

As it was, he decided to confine himself to coconuts, of which there were plenty.

Philip, in his meanderings, was suddenly startled by a grunt, followed by a tremendous scurrying in the undergrowth. Next moment a number of small-sized black animals dashed past him, scattering in all directions.

"Pigs!" said Philip, tempted to laugh. "I wonder where they came from?"

It did not occur to him to reason the presence of pigs on the island. He was only wondering where so many of them had suddenly appeared from. He pushed his way into the brush whence the pigs had rushed, and presently came to a face of rock with a large hole in it.

"Looks like a cave," said Philip. "Good! There won't be any room for the pigs to-night."

He walked into the cave. For a minute his eyes, now grown used to the light, could see nothing in the dimness; but gradually he made out that it was quite a comfortable place, only it smelt abominably of pigs. It was perfectly dry and—

Philip stumbled over an obstacle. He caught himself up and bent to examine it with his hands. It was square. He tried to move it. He succeeded tolerably, but it was as heavy as lead.

"That's funny. Pigs don't have trunks!" he exclaimed.

He looked around the cave again. His eyes, becoming more used to the dimness, made out other queer things about the cave. At the further end there was what seemed to be a wall built of bricks. He went forward and examined the wall. Then he stood perfectly still. Absolute silence reigned.

Presently he made a queer, cackling sound in his throat. He turned on his heel and walked out into the open. He staggered slightly, then fell on the grass.

A moment later that part of the island was ringing with shrieks of almost insane laughter. The circumstance—the irony of the circumstance—was too much for the son of Philander Sand.

Philip Sand, who had hired a steam-yacht to hunt for treasure, had been wrecked on the Caicos Islands, and about the first thing he had stumbled upon was *the pirate's cache*.

CHAPTER VI.

Treasure and Pork.

THERE was something more than mirth in Philip Sand's laughter. There was a bitterness — a regret over the absolute futility of human achievement. His treasure-story, too, had fallen to pieces; or, rather, it had reached an anticlimax. Anticipation was gone, and the realization had fallen flat. He had found the treasure at the first move, instead of after divers adventures and hairbreadth escapes, as is right and proper in a treasure-hunt.

But his sense of the ridiculous saved the situation; and the situation was extremely ridiculous. He was staggered by its funny side. Pigs sleeping on silver plate and golden ingots; reveling, perhaps, among pearl necklaces and other baubles of worldly worth; scratching their backs against golden images.

"The husks that the swine did eat," quoth Philip, humorously, and then he rolled over and laughed again.

He had only taken a cursory glance at the store of wealth, but he had discovered enough treasure to suggest that the boxes contained twice the visible value.

True, he could pay off the mortgage on his life. But if Lauriston's prediction had been right—and it did seem as if Philip were reserved for some particular fate, he would be a dead man in a year, and the Spanish treasure would be as useful to him as it was to—to Gibby's father or to the pigs.

"I can scratch my back on it, anyway," chuckled Philip, almost hysterically. "Gibby's father can't do that."

For about two hours he sat before the mouth of the cave, gradually recovering his sober senses and marveling over the business. Here he was on a desert island—a beautiful little island—and apparently it was all his.

He had enough to drink, and the problem of eatables would probably solve itself on the morrow; and he was also sole owner, by right of discovery, of a treasure which, on its face, was worth at least a million dollars. What a funny thing life was!

As he thought it over—the coconuts, the queer fruits, the pigs, and the treasure—it became clear to him that the island had been a favorite resort of certain persons at some time or other. Probably it was the pirates who brought the fruit-tree plants and the original pair of pigs, just as they had brought the treasure.

Philip was wrong in this theory. There were no mangoes or breadfruit in the West Indies in the days of the pirates.

But, even if he were rescued, what good would this treasure be to him if he could not live a year? At present he had his yacht and sufficient funds to keep him through the year. To a man who loved fast and high living, the treasure might be a handy asset; but to Philip Sand it meant nothing, worse than nothing.

He might await the rescuing steamer and present the treasure to the rescuer, or to charity, but the commercial instinct of the late Philander Sand arose in arms at the thought. And in Philip Sand, too, although he did not admit it to himself, there was still a great deal of red blood and human instinct.

It was the problem of the fifty thousand dollars over again. He hated to leave an unearned fortune to an undeserving heir, or to some one for whom he had not the slightest affection. It was his treasure, yet what was he to do with it?

"That coconut water is refreshing," reflected Philip, apropos of nothing, "but I would like a steak at this particular juncture.'

Captain Pearce, in the meantime, would be waiting and waiting at Colon for the Latin-American steamship Revuelan, which never arrived. What would Pearce do with the yacht when it was reported that the Revuelan went down? Pearce himself had caught the treasure fever. He had shown most decided symptoms of it when he could not keep his own counsel.

Perhaps Pearce would set sail for the Cocos Islands, not knowing that the "differing information" which Philip had in his breast-pocket placed the treasure in a diagonally opposite direction.

It amused Philip Sand, in an ironic way, to think of Pearce sailing off on the long voyage through the Strait of Magellan and northward to the Cocos, when the treasure lay only a few hundred miles from Colon, and Mr. Philip Sand was at that moment sitting on guard over that treasure, shooing pigs off it.

Laughing inwardly, Philip drew the damp log-book leaf from his pocket, ripped off the oilskin covering, and discovered that the sea-water had utterly obliterated the legibility of the ancient mariner's entry.

"And I alone know," said Philip, suddenly solemn.

He pitched away the worthless paper. It had been all that remained of that old captain and Gibby's father and Gibby himself. Now, they were dead and buried. Their identity had been obliterated by the sea, and no man would ever know that they had lived, or know that the treasure was on the *Caicos,* and not on the *Cocos.*

There came a grunting from the underbrush.

"Get away, you brute!" shouted Philip. Again there was a hasty flight of pigs.

Philip listened until the sound died away, then he cackled softly to himself.

"The pigs want to sleep," he reflected with the inconsequentiality of exhaustion. "I wonder did they ever realize what they were sleeping on?"

The suggestion of disturbed repose made Philip aware that he himself had had a hard day, that it was quite dark, and that he might as well rest. He entered the cave again. It was utterly black inside; but the air, despite its farmyard odor, was warm.

Philip felt quite grateful to the pigs, even, for the homelike atmosphere of the place. He managed to make a bed out of two boxes, and presently he stretched himself out for repose.

He did not sleep much for several hours. The pigs had to be shooed away every half hour, and in the intervals Philip composed himself by dreaming. This is one way of going to sleep—to imagine grotesque dream things.

Philip imagined that he would keep the secret of the treasure. Before his year was up he would make a regular chart, leaving out names. And he would make a document full of crosses, mysterious marks, and directions for pacing, etc., so that some other adventure-loving party would have more joy out of the search for and discovery of that treasure than he had had himself.

He finally grew tired of being disturbed by the oncoming pigs just as he was about to dream himself into unconsciousness. After one more frantic routing of the swine, he settled down for the night and fell asleep just at the point where a man with knives stuck in his belt was making a line with his hand from the shadow of the point of rocks at precisely 4 P.M.

Philip was awakened about sunrise by stertorous snoring all around him. He sat up, dazed. Opposite him was a wall of bricks, the lower part of which was deeply scored and of a glittering yellow. Then he remembered the treasure and where he was.

But the snoring! The light was dim in the cave, but he could make out long, black bodies stretched in slumber all about him. The air, too, breathed of an overfilled lodging-house that has not been aired for a month or two.

He shot out his foot at one adjacent lodger who was sonorously offending. The lodger gave a wild squeal. Next moment the cave was filled with snorting, squealing, and rushing. Two pigs had got in, after all, and had slumbered peacefully all night by his side.

The incident amused the castaway, and so his day began with lightheartedness; but it was only after the noise of the retreating pigs had died into the distance that a very practical thought occurred. He suddenly felt the gnawing hunger of a man who has slept soundly upon an empty stomach.

All at once he realized what a fool he had been to let the pigs get away so easily. He might have knocked one of them over the head while it slept beside him. Yet the thought had not occurred while the pigs were still snoring, for there had been the feeling that, after all, they were fellow lodgers, and it would have been unnatural for Philip to think of assassinating a bedfellow for the sake of a loin chop.

But he had to eat. His hunger was of the kind that is not particular as to the viands, so long as they are eatable, but it was powerful enough to demand that the meal be solid and substantial.

"Now, if the pigs would just come back," said Philip to himself, half unconsciously picking up a golden ingot. "I believe I could hit one at close quarters. A pork chop would taste fine this morning."

"Just my luck!" laughed Philip. "If I had been more sociable last night, one of the pigs might have sacrificed himself on the altar of man's necessity. However—"

He drank the contents of two green coconuts. They filled him, but did not remove the aching sensation. Before risking the queer fruits which he had seen, he sat down to think, while he alleviated his pangs with the slimy meat from the inside of the young coconut.

There was plenty of pork on the island. In time he might be able to kill a pig; but, even if he had one ready to hand, it would take him some time to cut it up and cook a chop. Was there nothing else that he could get quickly?

In imagination he glanced over a menu-card. Olives? Yes, olives might be growing here, only Philip was not quite sure that he could tell an olive-tree if he saw one, and he was not sure that olives were the washed-out green on the tree that they are in the bottle. Clams—oysters? Yes, there should be shell-fish; but then they might be out of season, and Philip had no very clear idea as to where oysters were to be found.

There was the ocean, and it was full of fish. Why not catch a fish? Fish for breakfast!

It was a brilliant idea, but it was like pork chops for breakfast. How was he to catch a fish any more than kill an elusive pig? He had no line, no hook. He might catch one in the shallows with his hands, but it was now an hour past breakfast-time, and he was very hungry.

"Surely, I can find something to make a hook and line," he said to himself. "Among all this truck" and his eyes turned to the boxes—"there is something that might be made use of."

He got a large stone and began to batter the top of one of the boxes. The wood was quite rotten, and in a moment he had the lid off, breaking the hinges as if they had been soft putty.

Inside the box he found a miscellaneous collection of valuables. There were strings of coral and strings of pearls, many elaborate necklaces of varicolored stones, and quantities of jeweled brooches. The bulk of the stuff in the first box was made up of little golden images—crude things with queer heads and cross-legs.

They reminded Philip of little Indian gods he had seen in the Metropolitan Museum. He decided that that was what they were—Indian gods, probably stolen by the Spaniards from Incas of Peru and brought across the isthmus with the other ill gotten store, only to fall into the hands of the first high-sea marauder.

But he gave little time to dreaming just then. His hunger was extremely practical in its demands. He was looking for a hook and line with which to catch a fish for breakfast.

He picked up a brooch in which was set an uncut ruby. It had a stiff pin, and for a few minutes the hungry man was busy with a stone, beating the pin into the semblance of a hook. Succeeding in this, he made a cut near the point with his knife, so as to give the hook a clutch should it lodge in the mouth of a fish. Then he turned in search of a line.

There was a lengthy string of red coral which seemed strong enough. To

this he tied a bit of fine gold link-chain, and added to the length a kind of hair rope, which was decorated with strung pearls.

"That should make a fairly good fishing-line," said Philip to himself, holding up the outfit for his own inspection.

Next he prepared to attach the hook. He was going to break the brooch off the bent pin, when he suddenly remembered the love of fish for a bit of color. He had never fished with a ruby before: but, if he knew anything about fishing, a ruby set in gold should make a pretty good troll. As he could hardly troll, in the strict sense, he could try a cast or two and draw in his brilliant bait slowly.

A few minutes later he had climbed to the point of the pile of barren rocks. He cast out his rich line as far as its weight and length would take it, and then began slowly to draw it in.

The result was nil. He tried again, and with the same result.

"There aren't any fish hereabouts," he said to himself; and then he laughed, for it was so like a fisherman at the end of the first vain five minutes.

At the end of half an hour he was growing quite disheartened. Also, his hunger was lowering his optimism.

"I'll try again," said he, as he drew in the mocking jewel without a catch. "If there is any virtue in an old saying, I will catch a whale presently, pickle the meat, use the blubber-oil for illumination, make a bow to shoot pigs with out of the whalebone, convert the—"

He stopped. He had thrown the line: and as he started to draw it in he felt a slight jerk, followed by the thick, wavy motion that thrills the soul of the angler.

"Hear me, ye gods!" cried Philip jubilantly. "I have caught a fish!"

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CHAPTER VII.

The House of Gold.

TEN minutes later Philip Sand sat in front of his cave. A fine, wholesome-looking fish lay on the grass before him, but the angler was scratching his head.

"I've caught a fish," said he, as if to assure himself that that difficulty at least was solved. "But how the deuce am I to cook it?"

By this time he was in a desperate condition from hunger.

Philip was doing very well as an amateur Robinson Crusoe, but the trouble was that most of his knowledge of procedure on a desert island was based on Defoe and Marryat. For five minutes he had tried in vain to produce fire by rubbing two sticks together. For ten minutes he had exercised his penknife with a piece of stone that looked like flint, and very likely was not. Then he cast his mind back to stories of shipwrecked mariners.

There was one story in which he recalled that the castaway made a fire by gathering some dry leaves together and setting fire to them with the aid of the sun and the small end of the telescope. Philip hadn't a telescope. He hadn't even a pair of eye-glasses. He had a box of matches in his pocket, but the water had touched them and the heads had come off.

Just at that moment he would willingly have parted with that million-dollar treasure for just one dry match with which to make a fire to cook that fish. He would not have considered the price a bit too dear, even without a guarantee that the match wouldn't go out.

He got to thinking of a certain fable, in which a traveler was dying on the desert and all he had was a bag of pearls. The fable told of the man's awful sufferings and of his feelings; how he had gone down on his knees on the desert and promised the saints that he would build temples with his precious pearls, if only a miracle could be wrought and he could have a teaspoonful of water and a crust of bread. But the miracle wasn't wrought, and the traveler died in fearful agony.

It was a fine story, Philip thought—a fine parallel. Only the story was a [illegible]. It had always worried Philip, that story, because if the man died, how did the truthful scribe know about that prayer and the traveler's soulful emo[illegible]

Anyhow, what had that to do with this fish? Philip could not quite recall just what had started him on that story. Oh, yes— It was the uselessness of treasure

as compared with a little match. But was that fabulously valuable, man-sought stuff so useless? Wasn't there a spark of flame in it—just a spark?

Then Philip smiled a broad, satisfied smile. He went to the box which he had opened and turned over its contents until he found what looked like a very fine white topaz. Presently he gathered some dry leaves and sticks into a little pile. Then he sat down and proceeded to concentrate the sunlight through the topaz upon the leaves.

The little spot of fire hurt his eyes. He looked at it so intently that it made his brain reel, and when he looked away for a moment he saw a big black spot elsewhere.

For fifteen minutes he tried in vain to make the leaves take fire. The spot beneath the concentrated ray would blacken and singe, but would not burst into flame. Finally, he arose in disgust and pitched the topaz into the brush.

"The only way to cook that fish," he said bitterly, "is to lay it out in the sunshine."

Rendered desperate by hunger and disappointment, he went off in search of a coconut. He found one, cut the end open, and drank the milk. When he returned to the mouth of the cave he found the pile of leaves and dry sticks blazing merrily.

"A watched pot never boils," quoth Philip, laughing joyously. The ray had left a spark of fire singeing in the leaves, and then the breeze had done the rest.

In a short time he was hungrily eating his fish, which proved to be as delicate a thing as he had ever tasted.

"And now," he reflected when his hunger was partially appeased, "what next?"

His first idea was to hunt a pig, but he reckoned that luncheon would be about due before he had procured one. Having proven to himself that the treasure was at least good for catching fish, he finally decided to spend a few hours on the rocks. The result was that he caught another fish; but, as he felt able to dispense with a midday meal, he decided to fish on all afternoon.

Toward sunset he caught another, and with his two fish he spent the rest of the hours of daylight in making a fire and cooking. His dinner that night, supplemented as it was with coconut milk and coconut meat for dessert, was a great success.

After dinner, Philip was just thinking about the joys of the pipe which was not in his possession, when he noticed the moon overhead. Previously he had observed that the dusk was rather long. The knowledge that his evenings—for a week, at least—would be gladdened by light, cheered him greatly. He employed the evening in the construction of a club, the nature and purpose of which amused him immensely.

"I wonder," he mused, "if a pig ever died the glorious death of being hit on the head with a heathen image of gold tied on the end of a stick?"

This, indeed, was the form and purpose of the club. Having taken one of the heaviest of the little Inca gods from the box, he had tied it to the end of a stick with a strip of silk which he had found among the miscellaneous treasure.

"Now, for the pigs!" laughed Philip, swinging the club.

He did not feel any great need of sleep that night, so he decided to lay in wait for the pigs, which, he felt sure, would come back to their lair as soon as all was quiet.

Philip ensconced himself on a little platform of ingots and waited expectantly. An hour went past, then another hour. The moon was shining across the mouth of the cave, and he could not fail to see any pig that tried to enter.

It was not until the third hour of his watch that he heard a grunting in the brush. The sound came nearer. Presently there were numerous grunts.

"They're holding a council of war!" chuckled the castaway, fingering his gold-mounted club expectantly.

Whatever the pigs might have been doing, they seemed very wary of entering the cave, remembering, no doubt—if a pig has a memory—that certain strange things had happened therein during the last twenty-four hours.

Philip was sitting on the ingots, fuming over the stupidity of pigs in general, when a shadow fell athwart the cave mouth. He waited for a moment, and presently a hog stood at the entrance and grunted a challenge.

Philip rashly accepted it. He flung the golden club with all his strength at the pig, which uttered a defiant squeal and fled. The club hit the rock buttress at the left side of the cave, and the golden image came off the end.

"Now, I've spoiled everything!" groaned the castaway. "They were just coming in, and now they won't come back for a week. What a fool I am!

"I was too eager," he said to himself, and, sure that there would be no pigs to disturb his rest, he made the most of that consolation and went to sleep.

He was right. He had no fellow lodgers when he awoke in the morning. Angry at the fulfilment of his own prophecy, he mended the club and widened the breach between himself and the pigs by a vain pursuit of the whole drove.

That third day on the island he spent fishing and cooking. It was the same on the fourth day and the fifth. Finally, Philip hated the taste, even the thought, of fish.

"I no sooner catch a fish and cook it than it is time for me to go catch another and cook it for the next meal."

Thus he summed up his semihumorous situation, and decided that he needed a change of diet. The fifth night on the island he heard the pigs grunting about the mouth of the cave. His first impulse was to give chase. The call of a pork chop was strong upon him, but he remembered the grave consequence of his earlier rashness and resolutely went to sleep.

He awoke in the morning with an idea. It was this. What was keeping the pigs out of the only place where he could hope to trap and kill one? Himself! Then he must vacate the premises in favor of the pigs.

"They are well-bred pigs," said Philip to himself. "They are used to the parlor and resent intrusion. I'll get out and—call again."

That morning he was lucky with his jeweled hook and line, and got enough fish to last him through the day. The afternoon of that sixth day he spent constructing a lean-to of branches in a sheltered corner of a rocky bluff. The rock afforded two walls of his house, and the rest was merely a matter of one side of branches; so that, when finished, his new residence was a triangular thing, with a hole at the left, where he could crawl in and out.

Philip was mightily pleased with himself when he went to sleep in his new house; but in the middle of the night it began to rain, and, as the lean-to was not thatched, he was very soon drenched.

"And that's wet, too," said the philosophic castaway as he stumbled through the darkness in search of the pigs' parlor, as he had dubbed the treasure-cave.

"That's one night lost in the campaign against the pigs," he reflected next morning. "It won't do. It might be dry for four or five nights, and then I might be forced back to the cave just as the pigs were getting over their bashfulness."

That morning, as he was doing his first fishing for breakfast, a great idea occurred to him.

"I knew that treasure was good for something," he said to the sea. "If Gibby's father *et al* were able to build a wall with the gold-bricks, why can't I?"

After he had cooked his morning's catch and eaten part of it, he put up the rest for luncheon and began the execution of his great scheme. He hoped that the pigs would not resent the shifting of their parlor decorations, but the ingots were necessary to the scheme. He carried them, two at a time, to the corner of the rocky bluff where the lean-to was. He took down such of the construction as the rain had not beaten down. Then he drew two lines, one out from each face of rock, so that the lines met.

Next, he laid a foundation of big silver ingots and built upon them. When the silver ingots were finished he piled on the golden ingots until he had a wall about seven feet high. He had left a gap for the door and topped it with a board and two rows of gold-bricks to bring the top of the erection flush.

The next thing he did was to roof the top with the branches he had used for the lean-to. Then he climbed, in a roundabout way, to the top of the bluff and dropped down more branches. The roof he finished off with bits of turf, which lodged in the crevices as he dropped them from above.

When he had thrown down as much as the roof of branches could stand, Philip returned to the beach and came around to his brick house. He looked inside at the roof. It was sagging a little from the weight upon it, but it seemed solid enough.

"Of course it'll leak," thought Philip; "and if it gets soaked with rain, the whole business might come down on my head some night; but a man whose house is built of golden ingots shouldn't complain about little inconveniences like that."

He looked at the solid walls of metal, and for some strange reason he could not help grinning extensively.

"Behold!" chuckled Philip. "Solomon in all his glory! All I need now is a visit from the Queen of Sheba."

A shadow fell across the doorway. The castaway started and spun around on his heel. Looking in upon him, her eyes wide with amazement, relief, and unconcealed joy, was Miss Verina Harding.

CHAPTER VIII.

The Adventures of Miss Verina.

MISS HARDING and Philip Sand stared at one another for a few seconds. The lady was the first to recover.

"Oh, Mr. Sand," she exclaimed, "I was never so glad to see any one in my life!"

"I'll go farther than that, Miss Harding," said Philip. "I was never so glad to see a *particular* any one. How d'-do!"

Then they stared at one another with a kind of growing confusion.

"What do you think of my house?" asked Philip, at loss for a subject. "I built it myself. It's made of gold, except for the interior decorations—arboreal, you might say."

She turned her eyes full upon his face, and into them came a look of sudden alarm and pity. He laughed.

"No, it's all right, Miss Harding. Being castaway hasn't robbed me of my sanity. I mean what I say. These bricks are made of solid gold. See!" And he jabbed on the wall with his penknife, turning up a gleam of yellow. "It's a treasure some gentlemen left here about two hundred years ago."

Miss Harding's stare became fixed on the golden wall. Things were coming a bit too fast for her. First, she had seen what looked like a human habitation. She had crept toward it and heard a man quoting—Scripture, it sounded.

She had looked in and faced the man whose fate had occupied her thoughts of late. And now Philip Sand was explaining that he was not dead, and that his house was built of gold-bricks with arboreal interior decorations. If he had not taken leave of his senses, it seemed certain to her that she had taken leave of hers.

Philip suddenly became aware of her distressed condition. He realized that all this was news to Miss Harding.

"Oh, pardon me!" he said hurriedly; "but I am afraid I have forgotten how to be hospitable. But the pigs, you see, are bashful—"

He stopped again. Miss Harding's eyes were filling with tears.

"Upon my word, Miss Harding, I don't seem able to say anything that will make you understand. You see, it is such a queer story; but do let me assure you that I am quite well—and—and I hope you are, too. You look well."

"It is all—so sudden—and strange," she said doubtfully, drawing back against the wall, which was real enough.

"Of course it is," said Philip. "It's the oddest thing I ever heard of—or read. Let me tell you in a word. I was washed ashore. I thought all the rest were drowned. I found this treasure first thing in a cave a little way from here.

"The cave was full of pigs—that's what I meant by the pigs—and they slept in that cave. Fancy pigs sleeping on treasure, Miss Harding.

"They bothered me so that I had to move out and build a house of branches. The rain came through, so I finally hit upon the idea of using the gold ingots of the treasure for bricks. I have just finished building this house. It isn't bad, is it?" he concluded lamely.

She continued to regard him with a confused, puzzled stare. And she had thought that he was dead. It was over-

powering to see him standing there in his golden hut with the irresistible smile playing about his quiet, refined face. She wanted to do something to express her feelings. She had a suspicion that if she did anything she would cry, and she did not want him to see her crying.

"That's my story," said he. "Now, you must tell me yours—how you got ashore, how long you have been here, how it is I haven't seen you before, and if there are any others on this island."

"Mine is a queer story, too," said she. "Yes, there are others on the island."

"Oh!" said Philip. And, somehow, he was disappointed. "Tell me?"

She opened her mouth as if to continue, but suddenly a strange expression came over her face. Her lips trembled, and a lovely moisture started in her features.

"Oh, Heavens!" thought Philip. "She's going to cry."

And that was just what Miss Harding was going to do—and did. She suddenly turned to the wall and laid her face in her arms. Next moment her shoulders were heaving and shaking, and Philip could hear her vainly suppressed sobs.

For an instant he was paralyzed with embarrassment. He had never had much to do with women, and was completely at a loss as to the steps required in the emergency. His first impulse was to put his arms around her and comfort her, as he had seen grown-up people do with children. But, then, Miss Harding was not a child, and at that moment Philip did not feel particularly grown up.

Instinct finally took the reins. Philip stepped up to Miss Harding and laid his right hand upon her shoulder very gently.

"Don't mind me, Miss Harding," he said. "If it does you good, have it out. You've been through a lot, I'm sure. But now you're in good hands—that is to say, I'll save you all the worry and discomfort I can. If you think you'd rather be alone, I'll—I'll go and fish."

She lifted her head quickly and turned a tear-stained face to him.

"No—don't!" she managed to say. "I'll—be all—right—in a minute."

He smiled and stepped out into the sunlight, feeling instinctively for the pipe and tobacco which he did not possess. The circumstances—of the missing pipe—upset him more than anything else had done since his arrival on the island.

He stared at the sea. He had stared at it a good deal in the past week, but now it seemed different. He was trying to connect that lonely waste with the idea that Miss Harding was alive—and was with him. He had connected it so with Miss Harding's death and absence.

It seemed unreal that she was with him again. He realized for the first time—he had refused to consider it before—how much the girl's actual existence meant to him. But he was not going to consider it now in any other way than that she was alive, and that he was glad she was alive.

She was the same Miss Harding, only circumstances were altered. She was as handsome as ever, as attractive, both *à la* Higgs and as she had appealed to Philip. She was wearing the same clothes that she had had on that night when he told the white lie about the captain on the bridge.

Her gown was soiled and a bit shabby, but it still set off her wonderful figure. She was just as beautiful in face, too; and a shade of suffering around her eyes, a little pallor of the cheeks, and a tremulousness of her lips did not detract from that beauty. In fact, these were hardly blemishes, for they heightened her feminine appeal, mainly because she strove hard to hide the appeal.

He wondered where Miss Sharpe was, and who the others on the island were, and—

"Mr. Sand," said a voice from the golden hut.

He turned to the door. She came out to meet him. Her face bore traces of recent tears; but she had downed them, and she was smiling bravely. She held out her hand.

"Let us begin over again," she said. "How do you do, Mr. Sand. I am very glad that you are alive. Now, tell me your story over again."

They sat down on the sand together, and Philip repeated his story—this time in detail. He had a way of interpreting things—the way that his philosophic,

humorous temperament saw them. Before he was done she was laughing heartily over his adventures with the pigs and his trials with the fish and the culinary department.

"I'm so glad I can cook," said she. "I would hate to be dependent on your makeshift cookery."

"Ye-es," said Philip, day-dreaming for the moment. "You may consider yourself engaged. Of course, you couldn't cook much without me to do the fishing. I have a great ambition to kill a pig; but before we make plans for laying up a store of pickled pork against emergency, I would like to hear your story."

"I am afraid I can't convey a definite idea of what happened," she said; "but after I called to you—I meant to warn you that the ship was aground—I went on deck. They were lowering the boats, and in the excitement Miss Sharpe and I got separated."

Philip glanced sideways at Miss Harding. She had paused, and he could see that she was mastering her emotion. Philip concluded at once that it would be better not to press inquiries after Miss Sharpe.

"I was the only woman in the boat they put me into. There were five sailors, and another man who kept very quiet. I thought it was another of the crew until he came to the stern of the boat and told me that he had come to take care of me, and that he had had to slip into the boat unnoticed. It was that creature Higgs."

"Humph!" grunted Philip.

"We hadn't the faintest idea where we were—at least, I hadn't. The ship went down and—oh, it was awful! We could hear them crying out in the black sea and there was a man called out to us quite near the boat, but they paid no attention to him."

"I got ashore, though!" Philip chuckled to himself.

"The crew rowed away into the storm. I don't think they knew where they were going, but they said they must get clear of the reef and stand by till morning. While they were rowing this way and that, a pair of arms came over the side of the boat and a man commanded them to take him in.

"'I stood by my ship till she went down,' he said in a queer way, 'and that's as far as a master's duty goes.'

"They pulled him into the boat. I expected to find that it was Captain Rodgers, but it was a strange man whom I had never seen before. He—he had been drinking, too; and he swore frightfully and paid not the least attention to me. I made out that he was the captain, but I could not understand this until afterward. You need not look so guilty, Mr. Sand. You did the right thing."

"That was what *I* thought," said Philip readily.

"The man who said he was captain—his name was Howells, and he had been the mate before Captain Rodgers went overboard—he ordered the men to row to the east. He said there were lots of islands about, and they could land on one as soon as it was daylight.

"When it got light, there were a number of islands sure enough. We could see this one, but the boat had traveled nearer to another island, which is east of this one. We landed there."

Miss Harding paused. Philip understood that the next part of her story was not pleasant narrative.

"It is an awful place, that island," she said. "It is all sand and rock. At one end there is a patch of tangled grass, which barely covers the sand, and there are some coconut-palms. We camped there, and I slept, while most of the men went off in search of food and water."

Again she paused.

"Yes?" said Philip.

"Only two of them remained—the captain and the man Higgs. I can't tell you what an obnoxious creature that man Higgs is. The captain is not a very pleasant person; but when he sobered up he kept to himself, and ever since he has hardly spoken a word. I think he feels guilty of negligence.

"Higgs told me that it was Mr. Howell's first ship, and he had lost her within twelve hours of his taking command. I can understand how the man felt when he became sober—and realized.

"And Higgs?" said Philip gently.

"Higgs! When I awoke he was sitting beside me. He told me that he was never going to leave me; that he was going to protect me. Oh, you cannot

imagine how odious an unwelcome protector is to a woman. I would rather have had the meanest of the sailors—and they were a poor, ignorant, inoffensive lot—than that man; but I had to appear grateful, while I just sickened at his presence."

"Never mind Mr. Higgs," said Philip quietly. "He did not offer you any—that is, he gave his very best imitation of a gentleman?"

"Oh, yes; he—he was *very* attentive, but I kept him at a distance. Once—only once—I told him that I would rather be left alone, and that the sailors would do all that I wished."

"All right," said Philip quickly. "So much for Higgs. You found the sailors—not so bad?"

"Poor fellows," she said. "They worked hard all day trying to find water and food. When they didn't, things looked so black that I do not think they were even aware of my presence. They tried to devise a hook and line to fish with, but they failed.

"We had nothing but rancid coconuts to eat, and there were a few fresh ones. The second day they found water, but it had a taste of the sea in it and was not much good, except for cooking. They cooked shellfish and things, and one of the men made coconut-oil, which took away the awful taste of some of the things we ate. But we managed.

"Things went on like this for several days. The men were waiting for the mate to give orders, but he kept to himself and walked about the beach like a crazy man. Finally the men went to him in a body and said that they ought to launch the boat and come to this island, which was quite clear to us. We could see that it had plenty of trees, and they said that meant good water. And perhaps there might be somebody living on it."

"There was," said Philip, with a smile.

"The captain agreed. I think he would have agreed to anything, he was so dazed. Yesterday the boat was launched, and we put to sea again. It was only about five miles; but it took us nearly five hours to get here, the currents were so queer and the sea was heavy. We finally landed about sunset—last night—and had plenty to eat."

"Eh!" said Philip. Then he laughed, and inwardly estimated his own intelligence.

"Last night," Miss Harding said, "the man Higgs made me promise that I would go for a walk this morning. He told me it was a beautiful island, and I must come and see the lovely woods. His idea was that I should walk with him. I promised that I would 'go for a walk,' to get rid of him; and this morning, before the others were stirring, I stole away. And here I am."

"And now that you are here," said Philip, after a long silence, "I think you had better remain. You need not be afraid that I shall be as attentive as the willing Higgs, but I can assure you fish for breakfast and a house to live in. Maybe, in time, we will have pork chops."

"But—" she said.

"It's all right," said Philip, with studied indifference. "I'll go back to my country residence with the pigs. You can have this summer palace; but, if you don't mind, I'll take my meals here. I am not particular about the husks, but I draw the line at eating with the swine."

"Very well," she said. "It is very kind of you."

"It's the least I can do in return for my good fortune," said Philip seriously. "I need not hide from you, Miss Harding, that your coming has brightened the outlook tremendously. It has been hard work laughing by myself. Now, we will try and laugh through things together."

He was standing, bareheaded, before her as he made this little speech. She looked up at him at first with the gravity of one who perceived sincerity overtopping gallantry; then, with a smile of gratitude, she held out her hand.

"I won't hide from you, Mr. Sand, that I am *very* glad it is you."

Five minutes later Philip Sand was walking alone toward the camp of the shipwrecked men, wondering just what he would do to Mr. Higgs when he found him, and what effect the treasure would have upon those "poor, ignorant, inoffensive" sailors.

(To be continued.)

HE HAD A GLIMPSE OF WHAT LOOKED VERY MUCH LIKE A MAN.

WHO'S GOT THE TURKEY?

BY PERCY WILSON.

The Eagle Eye and the Head Shack Discover the Difference Between Lark and Larceny.

NO. 65, the through freight, west; Engineer Howland and Conductor Gillip, lay in the siding at Welsh Creek, waiting for the Chesapeake Despatch, the fast freight, to pass east. It was a raw, drizzly afternoon in late November, and Skeeter Cook, the front shack, having dutifully ridden out on the train for the last fifteen miles, had come ahead to join the little company in the engine-cab; not that he had any particular desire for comradeship, but merely that he might dry some of the moisture from his garments and warm his chilled person.

Skeeter was not in a companionable mood. That morning he notified his wife that he had secured permission to be off duty on Thanksgiving Day, that he might enjoy one of her incomparable turkey dinners. Mrs. Cook — treasurer of the Skeeter household, and chairman of the board as well—had tartly reminded him that he had been bringing her home very skimpy pay envelopes for the past several months, and that, if he expected the national fowl to grace his table, he would have to provide it himself or else eat pork.

Being short of funds, and knowing no kind friend who would donate a bird,

Skeeter was the allegory of depression. His condition was trebly aggravated by the continued melody from a neighboring farm building—the angry "gobble, gobble, gobble!" of a disturbed turkey-cock.

"Shut up!" muttered Skeeter acidly.

"What's the matter, Skeet?" inquired the engineer, taking smiling note of the circumstance. "Don't you like to hear that turkey's call? It sounds to me like he was inviting us to dinner, with Thanksgiving only three days off. Um-m-m-m!" The engineer rolled his eyes and patted himself comfortably in pleasant anticipation.

"You shut up, too!" retorted Skeeter, scowling. "I reckon I know Thanksgivin's only three days yet, and Patchen promised to let me off. But, what's the use? My old woman says it's hog meat for me—turkeys is too high. Hog meat on Thanksgivin'!"

Howland chuckled. "Too high?" he repeated, winking across at Gillip, who sat on the fireman's side. "They must be roosting on balloons then, Skeet, if that's your trouble. I swear you'd climb to the top of a California redwood to steal one."

"Oh! would I?" retorted Skeeter. "Would I? If I did, I'd more'n likely meet you comin' down with it."

This referred to an incident in Howland's firing days, when, on a marauding expedition with several others, he was coming down a tree with a fine bird and unexpectedly met the legitimate owner, whom he was compelled to reimburse at a fancy price. It was a body blow, and Skeeter permitted himself a grim smile.

"That's right; tell him about it, Skeet," urged Gillip. "Ha, ha! That's one on you, Howland. You'd better attend to your bright-works and let Skeeter alone. I'd sooner trust him than you, anyhow, for you've been caught at it, and I've never heard that Skeeter was."

"I never done it," declared Skeeter piously.

"All that I ever did myself," said Howland, "I did just for the fun of it."

"If I can't buy what I want to eat," went on Skeeter, taking a high moral stand, "I can go hungry. That's me."

"Good boy!" said the engineer with laughing approval. "Never steal because you're hungry, Skeet. When you go after the birds just for the fun of it, it's only a lark, but when you take them because you need them, it's larceny. That's the difference."

"I believe you," declared Skeeter.

"Guff!" broke in Gillip. "Neither of you are any too good to rob a roost. If I was old man Wentzel back there"—pointing toward the farm buildings—"I'd be patrolling that flock with a shotgun every night from now till New Year's."

Skeeter and Howland turned their eyes in the direction. "By George!" exclaimed Howland, "they're a nice bunch, aren't they? Does he let them roost there under the barn bridge?"

"Ah, ha!" cried Gillip. "You're figuring how to get one, are you?"

Skeeter, who had been eying the fascinating sight greedily, started guiltily at the question and was about to retort indignantly. Seeing that it was the engineer who had been addressed, he wisely held his peace.

"No, Gillip," Howland replied, shaking his head. "No. My days for such tricks are over. I'm getting too heavy to handle myself like I used to. I'm a down-and outer, I reckon. Those were good old days, though," he added regretfully.

"There comes the 'Peake," put in the heretofore silent fireman. Thus reminding them of their duties, he got down to take a look at his fire. Howland gave a light burnish to the throttle and the lever with a handful of waste and tried his sand.

Gillip pulled out his time-table and watch and made a mental calculation, while Skeeter, buttoning his coat and turning up the collar against the weather, swung down and started toward the switch.

When he reached the front of the engine he stepped between the rails, where he could not be observed from the cab, and looked longingly toward the barn. How he did hunger for a Thanksgiving turkey! Old man Wentzel could easily spare him one out of that bunch, and scarcely miss it. But old man Wentzel didn't know of Skeeter's wants, and the Despatch rolled by, and Skeeter let his own train out at the switch and went on with it.

Gillip and his crew should have made their return trip by daylight the following day; but having been held at their western terminal for freight delayed behind a wreck on the connecting division, it was almost ten o'clock at night when they were nearing Bonita, the passing siding first west of Welsh Creek.

If the longing of Skeeter for a festal bird to adorn his Thanksgiving board suffered any diminution when he realized how hopeless a prospect it was, it became intensified when he saw that they would pass through Welsh Creek eastward in the still hours of the night. The rain of the previous day had ceased and given way to colder weather without entirely clearing; and when night came on, heavy clouds obscured the moon.

This, of course, was greatly in Skeeter's favor; but what was almost insuperably against him was the general avoidance at Welsh Creek siding by east-bound freights on account of the difficulty in starting from that point with a heavy train. If the passing siding next east, that at Markley, could not be reached, it was policy to go in at Bonita rather than run the risk of having to seesaw out of Welsh Creek hole.

But even this difficulty Skeeter finally planned to overcome. From the time they were making, he figured that they could not reach Markley to clear the night express, No. 11, and would have to go in at Bonita. While they were in there, he designed to arrange a little "brake trouble" that would act as a drag when they tried to go up the hill east of Welsh Creek, and thus compel them to back to the siding and lie there for time freight No. 87.

WHEN HOWLAND CAME LUMBERING OVER THE EDGE OF THE CUT, HALF ROLLING AND HALF SLIDING TO THE BOTTOM, SKEETER WAS WAITING FOR HIM.

This would give him all the time he needed; and as a salve to his conscience for abstracting a turkey from Farmer Wentzel's flock without mutual arrangement, he persuaded himself that he would forward the value of it anonymously from his next pay—and sincerely hoped he might succeed.

With everything thus planned, he came confidently ahead on nearing Bonita to be ready to open the switch. "We can hardly make Markley, I reckon, Howland," he heard the conductor say. "Better go in here, hadn't we?"

Howland looked at his watch. Skeeter looked at his. Noting once more that the time was scant, and knowing the engineer's usual aversion to taking risks, he was dumfounded to hear Howland reply: "We ought to be able to do it. We can, if the old boat hangs together. Let's try."

The lights of Bonita were far to the rear before Skeeter began to recover from the effects of this death blow. Life seemed a vale of gloom until, turning a baleful look on Howland, whom he held to be the cause of all his griefs, he noticed that the engineer was beginning to act strangely.

Easing his bar; hanging out the window; trying the throttle at various notches; listening with sharp ear to every click of the machinery, all the while muttering to himself, Howland's actions indicated that the "old boat" was not hanging together.

When, turning to the conductor, he said, "We'll have to go in at Welsh Creek, Gillip. That right crosshead key's working loose," Skeeter could scarcely restrain himself. "Hang it! I told Corcoran, when he was putting the stud-bolt in, that he was stripping the thread," the engineer went on. "I'm afraid to hit the hill with it the way it knocks. Don't you hear it?"

Gillip hadn't heard. The unmentionable old kettle knocked so unmentionably all over that he couldn't tell one knock from another. He supposed he'd have to take Howland's word. All he knew was that, at this rate, they wouldn't get home for a week.

Skeeter, however, came to the engineer's support with the declaration that he had been hearing it very distinctly, and had been on the point of mentioning it when he saw that Howland heard it, too. "Pretty bad, ain't it?" asked Skeeter.

Howland made no reply. His look even intimated that he didn't believe Skeeter knew what he was talking about. But Skeeter did, for he was talking to get twenty minutes or more in Welsh Creek siding, regardless of how it was brought into effect.

Stopping the train as soon as the rear end was well into clear, Howland dropped off with hammer and wrench; and he was tapping the head of the key, when Skeeter and Gillip appeared to learn how long it would take to make the repair. They could follow No. 11 close, Howland said, if Gillip would go to the telegraph office and get the block held for them immediately after the express had passed.

By backing out of the siding and taking that much of a run at the hill, he thought they should be able to get over it without having to double. "And you had better look over your brakes carefully, Skeet," he suggested, "for we don't want to hang up."

At any other time Skeeter would have retorted that the brakes were all right, that that was his business, and he attended to it; that if the air was handled the way it should be, there wouldn't be any trouble with the brakes. In the present instance, however, he merely waited until the conductor had gone ahead toward the office, and then started dutifully back along the train.

With some concern he noticed that the sky was growing lighter. With the wind beginning to sweep the lower, heavier clouds before it, there was need of haste. Moreover, as the engine was standing nearly opposite the barn, every step took him farther from his point of attack.

When he had gone about seven carlengths, he glanced over his shoulder and, seeing nothing of Howland or his torch, stepped between two cars and jerked out his light. Then, looking out, and still seeing no sign of the engineer, he hung his lamp on an uncoupling-lever and stepped down the low bank.

With the sound of his footsteps drowned by the rustle of the wind through the dried leaves of the corn, he

made his way in safety across the field. Just as he reached the fence separating the field from the barn enclosure, an edge of the moon shone out. Quickly he dropped down.

He was not certain if it were the passing shadow of a cloud, or, perhaps, merely his imagination—but he had a glimpse of what looked very much like a man crouching close against the side of the barn bridge.

For nearly a minute, Skeeter remained there undetermined what to do. Being loth to give up, now that he was close to his goal, and the moon being obscured behind a very large and heavy cloud, he crept along the fence, and crawling between the bars, made his way cautiously to the farther side of the bridge.

A glance toward the house showed no light. A moment's intense listening revealed no distinguishable sound but his own breathing. Taking fresh courage he lowered his head and stepped softly into the pitch-black darkness beneath the incline.

The pungent aroma that attacked his nostrils left him in no doubt of having come to the right place. A fence rail stretching from wall to wall met his hand, but as he felt cautiously along it he experienced something of dismay at finding it unoccupied. He reached anxiously forward and touched another.

His hand was scarcely on this one when something like flesh struck his little finger and immediately another hand made a sweep at his own. It brushed his knuckles as he snatched them away.

It needed nothing more to convince Skeeter that the form revealed crouching alongside the barn bridge must have been the farmer, who having seen him as he came across the field had thus encouraged him to walk into the trap and be caught.

But he was not caught yet, and backing hurriedly into the open as he heard the other scrambling toward the farther end, he circled around a wagon-shed, made a détour to get behind the house, and raced from there toward the field.

The moon came out before he reached the fence, and as he crawled beside it, scarcely daring to breathe and listening sharply for sounds of pursuit, he saw that the sky was clearing rapidly. From the absence of any sound of footsteps he feared that the farmer, instead of following him, was watching to cut him off. His safest plan was to follow a shallow gully leading eastward of the engine, and to move only when the moon was obscured.

Three times he was compelled to stop in the shadow of a corn-shock. He was about to make his last dash for the railroad and, crossing it, come around the farther side to avoid his mates, when he saw in the beams from the head-light that Gillip was coming up from the office.

Changing his course, he ran up the hill and, as the moon came out once more, took refuge against a shock almost opposite the engine-cab, and about five yards from the edge of the cut in which it stood, just in time to see a burly form stagger out of the moonlight into the shock next ahead. It was Howland.

It required several seconds for Skeeter to grasp the situation. When he did, it was with an outraged feeling of chagrin and disgust. After all his planning and trouble, to have no turkey, and all on account of Howland, was too much.

He'd like to— By cricky! He wondered if Howland had seen him. After a moment's reflection, he felt assured that he hadn't; and the instant there came a shadow, he darted toward the engine-cab and slid down the bank.

When Howland came lumbering over the edge of the cut, half rolling and half sliding to the bottom, Skeeter was waiting for him.

"You're a nice Christian, you are!" he began sarcastically. "You make believe your engine's broke down, don't you? But what you're after is turkeys. I know. Didn't I see you? It's a pity that farmer didn't—"

"Sh-h-h-h!" warned Howland, puffing and blowing. "Here comes—Gillip. Sh-h-h-h!"

"O-ho!" said Skeeter. "You don't want him to know, do you? Well, I'm going to tell him, and—"

"No," urged the engineer. "Don't. Leave him to me. I'll fix it right with you."

"I thought I saw you fellows in a mix-up," said the conductor as he came

closer. "And you're all covered with dirt, Howland. What have you been scrapping about now?"

Howland nudged the brakeman to keep silence. "Just a little friendly wrestle," he panted. "But say!"—staring at the article in the conductor's right hand—"where did you get that?"

"This?" said Gillip, holding up a young hen turkey. "Old man Wentzel gave me this. A fellow from Baltimore's been around here the last two days buying every turkey he could find. Old Wentzel sold his whole flock—"

"His whole flock!" Skeeter was on the point of exclaiming, when he checked himself. Howland's eyes were as big as switch lights.

"And he's down at the station loading them into a car with the rest for No. 81 to pick up. I helped him rack up his coops, and he opened his heart."

Skeeter nudged Howland and motioned to the turkey very significantly. In fact, it was a threat.

Howland took the hint. "Say, Gillip!" he asked, "how much will you take for that? You've got one at home now. You don't need another."

"Two-fifty," said Gillip.

"Done," said Howland, and the exchange was made. Gillip started to climb up on the engine.

"Here, Skeet," said the engineer loudly; "here's your bird. You won the bet. You threw me fair." And, dropping his voice to a whisper: "Don't you ever say anything—or I'll never hear the last of it."

"HIS WHOLE FLOCK!" SKEETER WAS ON THE POINT OF EXCLAIMING.

In giving the fowl into Skeeter's hands, his own hand brushed the brakeman's little finger, and he straightened back with a jerk. "Look here!" he exclaimed in a husky whisper, "you were the fellow on the other side of that—"

Skeeter grinned. "Mebbe I was," he retorted, starting off with his prize; "but you can't prove it."

How Railroad Men Balked a Plot to Assassinate Lincoln.

BY BERTRAM ADLER.

JUST after the close of the Civil War, plots to assassinate Abraham Lincoln were hatched thick and fast. One carefully prepared scheme to take the life of the Great Emancipator was nipped in the bud by the railroad men in charge of the train on which he was traveling to Washington. They worked in conjunction with the Pinkerton forces, and they did their work faithfully and loyally, as the following chronicle of that historical happening will show.

The Members of a Band of Baltimore Conspirators Awake to Find Themselves Cheated in Their Attempt to Prevent the Inauguration.

ONE morning early in the year 1861, Samuel H. Felton, president of the Philadelphia, Wilmington and Baltimore Railroad, rushed to his private desk in the executive offices at Philadelphia and scribbled a letter which he directed his clerk to get into the first mail West. The clerk noticed that the letter was addressed to Allan Pinkerton at Chicago.

"Gee!" he exclaimed, "another robbery!"

The "boss's" letter dealt with more important matters than mere theft of money. It dealt with rumors of an attempt on the part of Southern sympathizers in Maryland to isolate the capital of the loyal States by preventing approach to it by train. The last link in the route to Washington was President Felton's road, and its tracks were to be demolished and its bridges destroyed. Whatever information Mr. Felton had of the great plot, the letter to Pinkerton contained.

Several days later, the head of the house of Pinkerton was closeted with the railroad president. In a nearby hotel were four picked aides whom the detective had brought East with him. With the president, in the railroad council chamber, was one other official, Henry F. Kenney, Mr. Felton's superintendent. When the conference ended, Pinkerton summoned his aides and sent them forth to find the truth or untruth in the plot rumors.

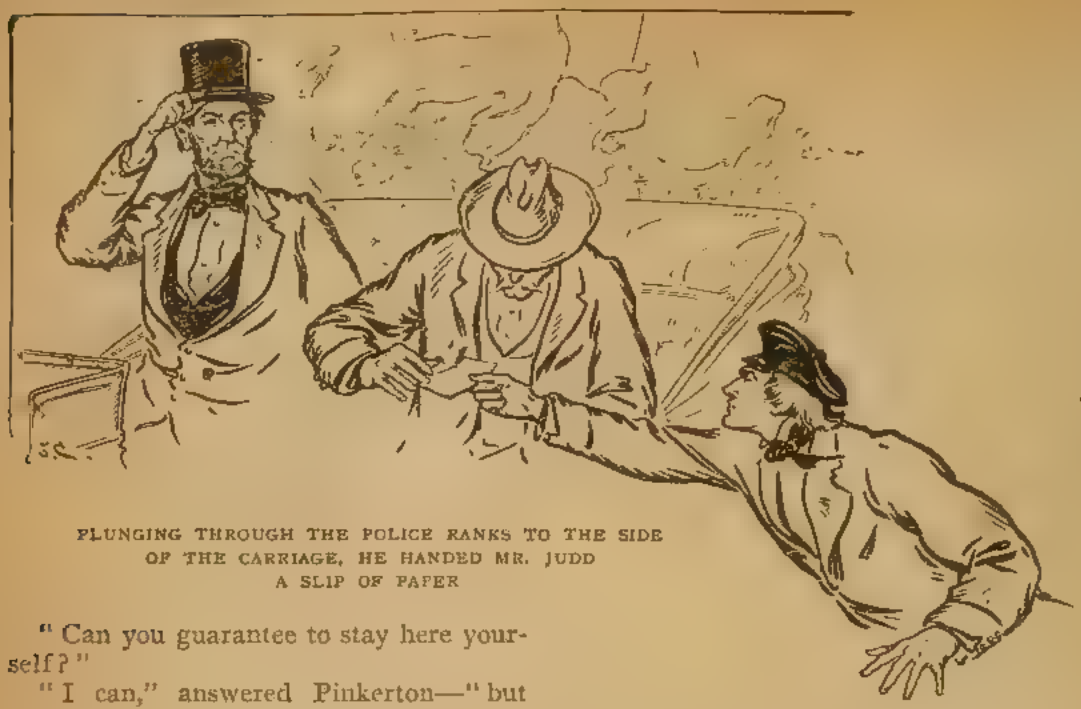
They returned with a complete corroboration of the rumors. Washington was to be made isolated by the Maryland secessionists. Furthermore, the isolation was to become effective quickly—and Lincoln, the President-elect, was never to reach Washington for his inauguration. When Mr. Felton had heard the reports through, he turned to Pinkerton.

"Allan," he said, "can you change your headquarters to the East?"

"I can," answered Pinkerton.

"Can you bring every one of your detectives here?"

"I can."



PLUNGING THROUGH THE POLICE RANKS TO THE SIDE OF THE CARRIAGE, HE HANDED MR. JUDD A SLIP OF PAPER

"Can you guarantee to stay here yourself?"

"I can," answered Pinkerton—"but why do you ask this?"

"Your men will guard my road," said Felton. "You and I will ride Mr. Lincoln over it."

At every danger-point a detective was stationed. Every bridge and ferry traversed by the road was kept under the surveillance of Pinkerton men in the guise of laborers. Ostensible trackmen watched every inch of rail and telegraph wire through the disloyal parts of Maryland.

Pinkerton himself spent much of his time in Baltimore, where he soon unearthed the chief plans of the Southern sympathizers. Then he hastened to Philadelphia and Mr. Felton with his information.

"The assassination," he stated, "is to take place at the Calvert Street depot of your road. A vast crowd of secessionists are to assemble there and await the arrival of Mr. Lincoln's train. They are to appear early and to fill the narrow streets and passages immediately surrounding the depot.

"The marshal of police is a Southern sympathizer and is conversant with the assassination plans. He will detail but a small force of police to attend the arrival and nominally clear and protect a passage for Mr. Lincoln and his suite.

"When the train enters the depot, and Mr. Lincoln attempts to go through the narrow passage leading to the streets, a party, already delegated, is to engage in a conflict on the outside. The police are to rush away to quell the disturbance.

"At this moment, the police being entirely withdrawn, Mr. Lincoln will find himself surrounded by a dense and excited crowd hustling and jamming against him. Then the fatal blow is to be struck. A boat waiting on the Chesapeake shore is ready to take the assassin on board a swift steamer which will convey him to a Southern port."

The situation was really alarming and heroic measures were in order. It was decided to obtain a speedy interview with Mr. Lincoln, submit the facts squarely to him, and abide by his suggestions.

This meeting between the detective and the railroad officer took place on February 20. The President elect was expected to arrive in Philadelphia *en route* for his inaugural on the following day. All Philadelphia had prepared to welcome him. The entire militia of the city was to act as escort from the railroad depot to the Continental Hotel, where he was to receive the congratulations of the people.

Just before the Presidential party left New York for the Quaker City, one of

Mr. Pinkerton's assistants met Mr. Norman B. Judd, of the official escort, and arranged for an interview between Felton, Pinkerton, and Judd at Philadelphia.

When Mr. Lincoln arrived the enthusiasm of the populace was unbounded. The great military and civic procession escorted the new chief magistrate through streets black with people. On each side of the carriage in which were Mr. Lincoln and Mr. Judd, marched a file of police, whose duty it was to prevent the multitude from pressing too closely to the vehicle.

As the procession reached the corner of Broad and Chestnut Streets, a young man in the crowd tried to attract the attention of the occupants of the carriage. He found this impossible. Plunging through the police ranks to the side of the carriage, he handed Mr. Judd a slip of paper on which was written:

St. Louis Hotel, ask for J. H. Hutchinson.

The young man was a messenger from Felton and Pinkerton, and "J. H. Hutchinson" was the name under which Pinkerton had registered at the hotel to avoid the curiosity of any emissary of the Baltimore conspirators who might have chanced that way.

Shortly after the arrival of the President-elect at the Continental Hotel, Mr. Judd was announced to Felton and Pinkerton at the St. Louis. All proofs relating to the conspiracy were submitted to Mr. Judd, and, when he had satisfied himself about them, it was suggested that Mr. Lincoln should proceed on the eleven o'clock night train to Washington, where General Scott could guarantee him safety.

Mr. Judd agreed to go with Felton and Pinkerton to the President-elect and place the facts before him.

At Mr. Judd's request, Lincoln excused himself to the throngs in the hotel parlors, and received the party in private.

"But, gentlemen," he said, while they were discussing the matter, "while I can stand anything that is necessary, I cannot go to Washington to-night. I have promised to raise the flag over Independence Hall to-morrow morning and to visit the Legislature at Harrisburg in the afternoon. Beyond these I have no engagements. Any plan that may be adopted that will enable me to fulfil these promises I will accede to, and you can inform me what is settled upon to-morrow."

"I CANNOT GO TO WASHINGTON TO-NIGHT."

Lincoln's firm tone indicated the uselessness of attempting to have him alter his opinion, and a second conference was held in Mr. Judd's room, to which Thomas A. Scott, vice-president of the Pennsylvania Central Railroad, was summoned. Mr. Scott, however, could not be found; but George C. Franciscus, the general manager of the Pennsylvania Central, was reached; so was E. S. Sanford, president of the American Telegraph Company. At this meeting the railroad officials, the telegraph official, and the detective went over the situation carefully, and the following program was decided upon:

After the formal reception at Harrisburg, a special train, consisting of a baggage-car and one passenger-coach, should leave there at six o'clock P.M. to carry Mr. Lincoln and one companion back to Philadelphia. This train was to be under the immediate control of Mr. Franciscus and Enoch Lewis, the general superintendent.

In order to avoid the possibility of accident, the track was to be cleared of everything between Harrisburg and Philadelphia from 5.30 o'clock until after the passage of the special train. Mr. Felton was to detain the eleven o'clock P.M. Baltimore train. Every precaution was secretly taken.

Mrs. Warne, a woman detective, engaged a berth in the sleeping-car bound for Baltimore. Mr. Judd was to manage affairs at Harrisburg, and Pinkerton at Philadelphia.

The next morning Lincoln drew the Stars and Stripes to the top of Independence Hall flagstaff, and delivered a speech that is historical. The ceremonies over, he was driven back to the Continental Hotel, where he found awaiting him Frederick Seward, the son of William H. Seward. Seward told Lincoln that he had just arrived from Washington, that his father and General Scott had sent him to warn the President-elect of the danger of passing through Baltimore, and to urge him to start immediately for the capital.

HE WENT IMMEDIATELY TO HIS BERTH.

The advices which actuated the message came as substantiation to the information which Pinkerton had obtained for Mr. Felton. Mr. Lincoln evinced no further hesitancy in the matter, and signified his immediate willingness to do whatever was required of him. Mr. Judd, who was at Lincoln's side, then directed Mr. Seward to inform his father and General Scott that everything had been arranged to place the President-elect safely in Washington before the evening of the following day.

Lincoln started for Harrisburg, and Judd and Pinkerton busied themselves carrying out the program. Pinkerton had received reports from Baltimore, stating that the excitement there had grown intense, and that the arrival of the President-elect was eagerly awaited.

The common belief was that Lincoln would journey from Harrisburg to Baltimore over the Northern Central Railroad, and the plans of the conspirators were laid accordingly.

It was important that no hint of the contemplated movement of the Presidential party should reach the Monument City. Agents of the conspirators were found to be following, and it appeared certain that they would apprise their leaders by telegraph of Lincoln's absence as soon as they discovered it.

To prevent this, the American Telegraph Company detailed a trustworthy lineman to render useless for the time every wire leading from Harrisburg.

This the lineman easily accomplished by placing fine copper-ground wires among the regular lines, and Harrisburg was entirely cut off from the rest of the world. President Sanford, of the American Telegraph Company, directed his manager to remain in the office during the night and intercept any despatches that might be sent from any point between Harrisburg and Baltimore.

On the way to Harrisburg, Mr. Judd acquainted Lincoln with the final plans. Judd suggested that Lincoln take the other members of the Presidential party into his confidence. Lincoln accepted the suggestion, and at the Jones House in Harrisburg he informed the escort of the proposed night ride to Baltimore.

The gentlemen comprising the escort were: Judge David Davis, afterward of the United States Supreme Court; Major-General Sumner, Major General David Hunter, Major-General John Pope, and Ward H. Lamon, afterward United States marshal for the District of Columbia. Having thoroughly enlightened them as to his plans, Lincoln accompanied them to the dining-room.

It was late afternoon, and the special train was on a side track just outside of Harrisburg, waiting, supposedly, to take the officers of the railroad company back to Philadelphia. At Philadelphia the rear half of a sleeping-car of the Baltimore train had been retained for Lincoln, and a curtain separated it from the rest of the coach.

In order to detain the train until the arrival of the Lincoln special from Harrisburg, Conductor John Litzenburg was directed not to start until he received his orders personally from Superintendent Kenney, who was to give him an important package which President Felton wished delivered in Washington.

At 5.40 o'clock a carriage drove up to the side entrance of the Jones House. Two minutes later a message was handed the President-elect by Secretary John Nicolay. Lincoln looked at it, and straightaway went to his room.

He summoned Governor Curtin of Pennsylvania to his side, and proceeded with him to the carriage at the side entrance. Seeing Lincoln in company with their Governor, the crowds in and about the hotel decided that the distinguished pair were going to the executive mansion, where a reception was announced for the evening.

With Mr. Lamon, of the escort, the President-elect and the Governor entered the carriage, and a little later they were speeding to Philadelphia on the special.

They arrived at Philadelphia at 10 P.M., and found Allan Pinkerton and Superintendent Kenney waiting with a carriage. Lincoln, Lamon, and Pinkerton entered. Kenney seated himself on the box with the driver, and the carriage whirled off to the depot of the Philadelphia, Wilmington and Baltimore Railroad.

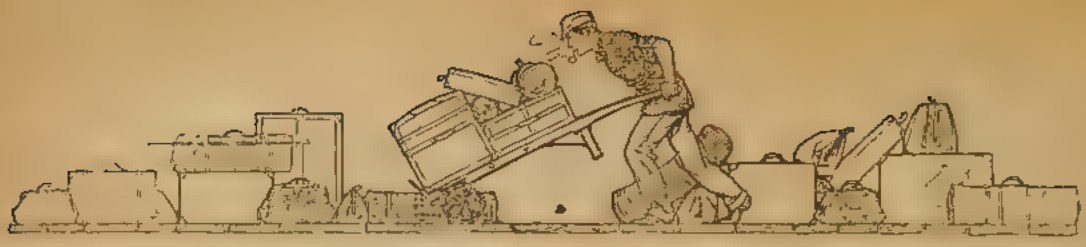
There the carriage stopped in the shadow of a fence, and the transfer of its distinguished occupant to the Baltimore train was quietly effected. Superintendent Kenney gave Conductor Litzenburg the Washington package and the order to start, and the night ride to Baltimore began. How safe Lincoln felt in the hands of the railroad men was evidenced by the fact that he went immediately to his berth, where he fell into a calm sleep.

The change to the Washington train at Baltimore was made without accident, and at six o'clock in the morning Lincoln arrived at the capital.

The Baltimore conspirators awoke to find themselves cheated of their prey, and vented their rage on the Massachusetts Sixth, two months later, in the historical mob attack wherein the first blood of the Civil War was spilt.

That Lincoln did live to be inaugurated is history but the work of several railroad men toward that end is not. You will find no mention of Felton, Franciscus, Lewis, Kenney, Felton's detective, or Sanford in the text-books.

It was all in their day's work!



RAILROAD IN YOUR BACK GARDEN.

How Some of Our Rich English Cousins Manage to Move About Their Ancestral Acres Without the Trouble of Walking.

RAILROADING as a private hobby, or as a private convenience, would not, on the face of it, seem to have a very extensive appeal. Nevertheless, there are several private railroads, notably in England, which have been constructed for the pleasure or private convenience of certain rich men. Some of these roads are not by any means toys, and the Lilliputian dimensions of their track and rolling stock only add to their interest.

Some time ago the *Scientific American* published an excellent article, with photographs, dealing with several of these private English railroads, and from this article we have taken the liberty to draw for our information. The English correspondent of the *Scientific American* says:

"The most notable of these private diminutive railroads are those at Eaton Hall, in Cheshire, the country seat of the Duke of Westminster; Duffield Bank, the home of Sir Percival Heywood, Bart., and Blakesley Hall, where resides Mr. C. H. Bartholomew, a retired civil engineer and contemporary of the Stephensons.

"These railroads are not mere toys, but exact replicas upon a reduced scale of the ordinary standard systems of the country, correct in every particular, including track, signaling equipment, rolling stock, etc.

"The miniature railroad at Duffield Bank was designed and constructed by its owner, Sir Percival Heywood, who is a recognized authority in such work, and is an enthusiastic advocate of light railroads. This particular line is one mile in length, exclusive of side-tracks, extending through the estate. The gage is fifteen inches. The track alone cost four thousand five hundred dollars. In its course the line passes through three tunnels, traverses two bridges of the wooden trestle type, and a timber viaduct of ninety feet in length by twenty feet in height. There are six stations along the route which convey guests to the various parts of the estate.

"The private railroad of the Duke of Westminster is of a more ambitious character. It runs through the Eaton Hall estate, and links the residence with the trunk railroad system at Balderton, three and a half miles distant. This line was also designed and constructed by Sir Percival Heywood, and is also of fifteen-inch gage. The whole system comprises four and one-half miles of track, including the direct through line, three and one-half miles long, and approximately one mile of side-tracks.

"The track is built upon the latest approved style, with Vignole rails, averaging twelve pounds per yard, laid on longitudinal wooden cross-ties, and cost, exclusive of buildings and rolling stock, six thousand five hundred and forty-five dollars per mile, representing an outlay of over twenty-nine thousand four hundred and fifty dollars in track alone. The gradients vary from one in one hundred to a maximum of one in sixty-five.

"This railroad is essentially employed for the transportation of freight to and from the house, though members of the family and their guests travel between the main-line station and the mansion, there being for such purpose a number of open vehicles and a bogie parlor-car capable of seating sixteen persons.

"The utility of such a railroad as this in connection with such a country seat, and the heavy work it has to fulfil, may be gathered from the fact that the trains cover five thousand miles, and transport over six thousand tons of freight a year.

THE DAM-BUILDERS.

BY BANNISTER MERWIN,
Author of "The Girl and the Bill," "The Sword of Tarroloys," "The Corner."

Light Amusement Proves Instructive and a Walking Delegate Falls Down.

SYNOPSIS OF PREVIOUS CHAPTERS.

LARRY SMITH and Jack Marley, being in possession of some valuable water-rights are building a dam, Smith being the engineer and Marley supplying half the capital. The other half of the capital is supplied by a Denver capitalist named Briggs and another man named Garth. Briggs comes to view the work, and while there he drops half of a broken shilling, which Marley picks up. The capitalist is interested as a money lender, and not as a partner and he holds a mortgage on the dam and all the rights, subject to a time-limit for the completion of the work.

CHAPTER IV.

Moving Pictures.

EARLY the next morning, Larry walked up to Murdock, who was watching a group of men fit the gate into one of the sluices that had just been completed.

"I want you to stop the masonry-work above there," he said, "and put the men at work on the pipe, down by Klingerman Pass."

"What's that?" Murdock stared at the engineer in surprise.

Larry repeated the instructions.

"Well, I don't know about it," said Murdock slowly. "What's the reason?"

"Simply that I wish to get the pipe done quickly and turn a little water into it," replied Larry coolly.

"You haven't enough inspectors there to keep up with such a rush."

"That's my lookout. As a matter of fact, Jones and Armsby have worked out the formulæ for all the pipe that remains to be built, and they are ready to give you the spacings."

It may be explained that a stave-pipe is built on the principle of a virtually endless barrel, without a bulge, the stave being of different lengths. At intervals, which vary in accordance with the head of water to be carried—in its undulations up and down over a surface that is only partially graded—steel rods must be bolted around the pipe.

The distance between the rods may be several inches at places where the level of the pipe is nearly as high as the level of the source of the water-supply. Where the head of water is great, the rods must be placed much closer together.

As the rods are a considerable item of expense, the contractor would be glad to space them as far apart as possible; but the engineers, working from formulæ, determine the correct spacing for every level of pipe. This was the work which Jones and Armsby were doing for Larry.

Murdock may have realized that, if the pipe was crowded to completion, any effort to make delays on the remaining courses of masonry would be palpable. At least, he was reluctant to concentrate his forces on the pipe.

He could not well refuse to obey Larry's order, however, and, in the end, he agreed; and after the noon meal sixty men were sent down to Klingerman Pass, with their outfits; for, like the others who were already at work on the pipe, they would eat and sleep near their job.

"I wish I had told him not to start them off until after hours this evening," muttered Larry to Jack, as he watched the procession wind dustily down the cañon behind its wagons. "Those sixty men won't be ready for business until to-morrow."

"They couldn't well move their outfits after dark."

"It might have been managed."

"Let me see," said Jack. "Murdock has twenty men still at work here on the sluices. Then, there are those twelve machinery-installers from Pittsburgh. Ives is directing the work on the sluices for you, and Jones and Armsby are down on the pipe."

"Well?" Larry looked at him in surprise. He had yielded as far as he felt that he safely could to the man who was both his friend and his partner, but Jack's insistence on protective measures was beginning to make him uneasy.

"Well," Jack continued speculatively, "there are five of us — and we might count on those twelve machinists in a pinch."

"Jack, you're getting melodramatic," laughed Larry.

"Perhaps I am," said Jack. "Anyhow, I'm going for a ride. Murdock kept Madden at the corral here with a few ponies, didn't he?"

"Yes."

"Well, good luck to you, then, Larry. I'm off for a time."

Jack rode up the cañon with an expectant heart. As for the situation at the camp, there was little to do during the next few days except to await developments. Murdock would not show his hand yet, and meantime, here was this wonderful Norse goddess to worship. He found that he craved to see her again, that he might the better remember her loveliness.

But when he reached the little bridge from which he had first seen her the afternoon before, she was nowhere in view. The stream rushed over its rapids and into its quiet pools, and there was no one to lure the wary trout from their hiding-places. Jack looked in vain for a glint of golden hair.

From the low houses that raised their roofs here and there through the valley, the smoke rose as on yesterday. From some distant field came the rattle of a mowing machine, but near at hand there was no sign of human life; and as he looked, the scene became to him strangely empty.

He almost wondered whether he had not dreamed Thekla—whether she were not merely an ideal of his imagination that had flowered in these fields to a seeming but temporary reality.

For a moment he considered riding on to the house and asking for her. Perhaps, after all, she had suffered some ill effects from her injury. It would be the polite, the correct, thing to go and inquire how she was.

But there was her father's hostility to the project in the cañon; perhaps it would be extended to Jack himself. Thekla had not invited him into the house when he took her home. There had been no reason for her doing so; but now he fancied that she might have feared an inhospitable reception for him.

As to the possibility that she had been more seriously injured than she thought, he refused to entertain it. Her mere failure to appear at the same time in the same place where he had first seen her was no evidence that she was ill.

Sitting his pony there, at the little bridge, he might have been a scout, scanning an untried country. Peter Wist, or any of his fellow farmers, would think as much, should they see him, and their suspicions of the Bendwater scheme would increase. He realized this. It would be inadvisable for him to remain where he was.

But first he must satisfy his fancy to leave some token. Dismounting, he gathered a handful of roadside flowers and carried them up the stream to the place where he had found her.

He untied the silk handkerchief that was about his throat, and, spreading it flat, laid the flowers upon it and weighted them down with a flat stone upon their stems. Then he tore a blank leaf from his memorandum-book, and scribbled upon it with his pencil:

"Hope you are all right.—J. M."

He thrust the paper under the flowers. She might again pass this way and find his token.

When he got back to the road, a child

was standing near his pony — a flaxen-haired, snub-nosed little girl about eight years old. Where she had come from he could not at first imagine, for the road was straight all the way to Peter Wist's house, and there had been no one in sight when he dismounted.

"Hallo!" said Jack.

The girl had thrust a finger into her mouth, and, at the sound of his voice, she looked at him shyly.

"Do you understand English, little one?"

An embarrassed nod; finger still in mouth.

"Do you know Miss Wist — Thekla Wist?"

Again the nod.

"Have you seen her to-day? Is she well?"

The girl nodded more vigorously.

"What's your name, little one?"

She hung her head, and her body swayed with embarrassment, but he caught the word, "Christine" — hardly more than a breath.

"Where were you playing when I came?"

His smile was anything but ogreish, and the child pointed to the field at the roadside. She had lain hidden, it appeared, amid the alfalfa.

"Well, good-by, Christine!" He climbed into the saddle and, with a profound salute, went galloping away.

It was now that the whim struck him not to return at once to the camp, but to ride by way of Willow Cañon to Larkin City, eat supper at a hotel, and, during the evening, go back to the dam through Bendwater Cañon.

It was a long ride — the eight miles already covered from the dam to "Sweden"; nearly twenty miles from "Sweden" to Larkin City by Willow Cañon, and eight miles up the Bendwater to the dam. But the pony was in good condition, and, if necessary, he could exchange it for a fresh mount at a stable in Larkin City.

A mile to his left, he could see the gap in the surrounding mountains that marked the entrance to Willow Cañon. The regular road thither began somewhere back in the settlement, but he continued toward the Bendwater until he had passed the limit of cultivated fields, and then turned in upon the sage-brush slopes at his left, skirting the shoulder that divided the two cañons.

His course took him high enough to give him a better view of "Sweden," and he was surprised to observe the extent of cultivated fields and the ingenious way in which the little streams had been turned to irrigation purposes. At length he came down to the Willow Cañon road, where it rose over the low barrier that shut the head of the cañon off from Sweden, and, giving the pony the rein, let the sure-footed animal plunge forward at an easy lope.

Willow Cañon was not so picturesque as the Bendwater. Its walls were relatively low, and its stream, though augmented as it proceeded by brooks from the mountainsides, was small. He rode many miles before he came to a house, for here there were no bottom-lands that could be cultivated.

Half-way down, he met a wagon coming up, and halted his pony at a widening of the narrow road to let it pass. The driver was a stolid Scandinavian giant, who nodded in indifferent greeting, but showed no surprise at seeing a stranger in this out-of-the-way place. One of the farmers of "Sweden," no doubt, returning from Larkin City with supplies.

At last the cañon broke through the range and debouched upon the low tableland, or "bench," which lay at the back of Larkin City.

Looking to the right, Jack could see where Bendwater Cañon had its opening — a mile away — and, as he looked, a horseman emerged and went galloping on toward the city.

At that distance, of course, it was impossible to make out who the rider was, but there was every reason to think that it was somebody from the dam, for the men of the outfit were virtually the only ones to go up and down the Bendwater since the construction-work had been in progress.

The two roads converged farther on; thus, as Jack proceeded, the rider from the Bendwater was closer. Something familiar in the way that rider sat in his saddle led Jack to slow down. He thought it wise not to be recognized until he had himself recognized the other.

A screen of poplars which bordered the road for a way helped him to keep fairly well out of sight, while at the same time he could look through the trees and across the fields to the other road.

The distant rider was not sparing his horse. Jack, meantime, had slowed down. Indeed, he stopped altogether just before he reached the end of the row of poplars, and waited.

The other man came nearer and nearer, on his angle, and when he passed the point nearest to Jack he was not more than a quarter of a mile away. He sat well back, his neck thrust forward between his broad, bent shoulders.

His long legs, even with the stirrup-straps let out as far as could be, were so bent that his knees almost came up to the pommel of the saddle. It was Bill Murdock, bent on an errand which appeared to be hasty.

The presence of the contractor in Larkin City added to the interest of Jack's visit. The natural supposition was that Murdock had ridden down on business—and business that was not necessarily important or significant. He might be planning to hire more men, or to arrange for a consignment of supplies.

Jack, nevertheless, determined to play the detective. Such a course could do no harm, and he might learn something. Therefore, he ambled slowly into the city by an indirect route, and put his pony up at a stable which was not ordinarily patronized by the Bendwater outfit.

Larkin City was a type of those Western communities which have lived through the youthful period of dangerous overgrowth. Originally a placer camp in the Karamak Valley, the later discovery of quartz ledges in the vicinity had led to the establishment of stamping-mills.

The mines were all in the mountains to the west of the city, for no prospector had ever found color worth while in Bendwater and Willow Cañons. A transcontinental railroad had forced its way through the Karamak Valley—adding to the permanent importance of Larkin City.

Agriculture had taken hold wherever the soil proved suitable and water could be obtained. So that Larkin City now had a population of about fifteen thousand people, two banks, a good hotel, many saloons, and a few churches.

Jack strolled slowly down the main street. Dusk was just coming on, and the arc-lamps were flashing out at the corners, whitening the wide macadam road-bed and enfeebling the incandescent bulbs that shone in the various shop-windows.

Many people were abroad, most of them lounging idly—laborers from the stamping-mills, farmers in from outlying districts, a sprinkling of better-dressed citizens. At the garish entrances of two moving picture shows, phonographs squawked loudly.

Avoiding the hotel, since Murdock would be likely to be there, Jack entered a cheap restaurant and ate a hasty meal. On the street again, he set out to find Murdock.

First he went to the hotel. The contractor was not in the lobby, nor did a glance into the café and the dining-room reveal him. Jack looked into three or four saloons without discovering the man he sought.

He had about made up his mind that Murdock's errand had taken him to the residence district—and very likely to Garth's—when he saw the man strolling along, fifty feet ahead. He checked his own pace.

Murdock glanced at his watch. He appeared to be in no great hurry. His manner was that of one who has a little time to kill, and he glanced into shop-windows, and once or twice nodded carelessly to passing acquaintances.

At last he turned in at the entrance to one of the moving-picture shows, bought a ticket, and disappeared through the curtains. Jack promptly followed into the stuffy little theater.

The dim light reflected from the pictures on the screen enabled him to make out Murdock's big form, seated several rows forward. He himself remained standing at the back, ready to get quickly away if the contractor should show signs of leaving.

The pictures projected on the screen at the time Jack entered were a variation on the familiar series illustrating the attempts of a thief to escape from the

police. The pursuit began on foot, and the thief then took possession of a cab, the police following in a delivery-wagon. Pursuers and pursued then impressed motor-cars into service; and the little drama ended with a fight on a country road, the fugitive being killed by a revolver-shot.

The crowd greeted the pictures uproariously. They applauded every successful turn the fugitive made, and cheered loudly during the fight. They were not jaded by amusements in Larkin City.

The next scene was the final round of a battle between two well-known pugilists. This proved highly popular, and there were cries from the excited crowd of "Good boy, Tommy!" and "Hit him again, Jack!"

And then the preliminary white letters flashed out on the screen:

Local view—work on the Bendwater Dam.

There it was—the long, gray line of masonry, with the mountains rising at each side, and the derricks lifting the heavy blocks of stone and swinging them to place. The workmen were moving about or bending at their toil. In the foreground though not near enough to be recognized, except by one familiar with his attitude—stood Bill Murdock, looking on.

Jack was puzzled to determine when these pictures had been taken. He remembered no visit of a moving-picture camera to the camp. He realized, however, that the apparatus might have been brought up in a wagon at a time when everybody was busy, and, perhaps, nobody would have noticed it.

People often drove up to look at the work. It had come to be no noteworthy sight if two or three buggies or carts were drawn up by the road just below the camp.

Now there was a break in the film. The camera had been moved nearer, or else a telephotographic appliance had been used. Only a section of the work—at one of the sluices—was to be seen, and between it and the camera stood Murdock, now as large as life.

Into the picture suddenly walked Larry, and behind him Garth, and then Thomas Briggs and Jack himself. The crowd shouted its recognition of Garth.

Standing there at the back of the theater, Jack gasped at the photographic presentment. His own motions, as pictured on the screen, appeared both familiar and strange.

He had not realized that his walk had such an effect of indolence. But there was no strangeness to him in the manner of the other men. The camera had undoubtedly caught the group at the moment when Thomas Briggs was being introduced to the work.

Larry, on the screen, seemed to hail Murdock, for the big contractor suddenly turned toward the four men who were approaching him. The expression of his face was distinct—the opening of the mouth when he recognized Briggs, the involuntary step forward. And there was that swift look of warning on Briggs's face.

The introduction took place—just as he remembered it. Then something happened which he had forgotten. Garth was pointing toward the dam and speaking to Larry, and he himself stepped forward.

Briggs and Murdock were now behind the others. Suddenly Briggs stepped forward and put his mouth close to the contractor's ear.

Apparently, he was whispering something. The contractor nodded assent, and the two men moved apart.

Another moment, and the five men on the screen were all talking together again. Briggs took out his handkerchief and mopped his brow. Then Jack saw himself stoop, pick something up, and slip it into his pocket.

What was it he had picked up? Oh, yes—the broken shilling. His eyes still on the pictures, he quickly felt in his pocket.

The fragment of coin was still there.

The moving-pictures now shifted to the pipe-line. But Jack had seen enough. He had seen Briggs seize the moment when the backs of the others were turned to whisper to Murdock.

He wondered how Murdock had enjoyed the pictures. Looking to where Murdock was sitting, he observed that the contractor was stirring, as if about to rise. Therefore, he stepped quickly

out to the open air and, hurrying across the street, took up a position in the half-concealment of a doorway.

CHAPTER V.

Room 631.

PRESENTLY, Murdock came slowly out of the theater. His eyes were on the ground, as though he had been made thoughtful by what he had seen. He turned to the right, and slouched in the direction of the hotel.

Jack followed on the other side of the street. He had begun to think that the object of the contractor's visit to the city was to see the moving pictures. The news that they were being shown might easily have spread to the camp.

When he got to the hotel, however, Murdock turned in at the main entrance with a manner of definite purpose, first glancing toward the clock-tower of the railroad station, two blocks away. The hands on the illuminated dial registered eight-thirty.

Whether the time of the evening had anything to do with the contractor's sudden alertness, Jack, of course, could not tell. He waited in a shadow at the other side of the street, to make certain that his man had not merely stepped into the hotel for a moment.

Five minutes passed. People were frequently going in and out of the hotel entrance, but Murdock was not among them.

At last, Jack crossed the street and entered. The lobby was a place where the business men of Larkin City frequently went, of evenings, to meet, not only acquaintances from out of town, but each other. It was, to all intents and purposes, a club; and if Murdock should see Jack come in, he would suspect nothing unusual in the arrival, since this was the natural center of gravitation for a young fellow of Jack's standing.

Murdock was not among the groups in the lobby, however. Nor was he in the café. Either he had gone out by another door, or—and this became, for the moment, a conviction—he was planning to spend the night in the city and had taken a room.

The obvious course for Jack was to look at the register. He strolled over to the desk.

"Hallo, Mellish," he said to the clerk. "What are you doing here this time of the evening?"

"Wharton had a little business to look after"—Wharton was the night-clerk—"and I am staying on till he comes. He'll be here in a few minutes." Mellish laid his pen down with a flourish of emphasis.

Jack swung the register around. As his eyes fell on the names of the late arrivals, he exclaimed aloud.

"What's the matter?" inquired Mellish.

"Nothing! I thought of something I have to do. So long! Perhaps I'll see you later." He hurried away from the desk and out to the street. He wanted to think. For on the last line of the register, written in a precise, copper plate hand, he had read:

Thomas Briggs, Denver.

Opposite the name was the room number, "631."

There was little doubt now as to what had become of Murdock. He was surely closeted in Room 631 with the Denver capitalist.

But Jack wanted to make sure. That conference on the sixth floor must not go on uninterrupted. He walked twice around the block, trying to decide just how to act, and at last he made up his mind that the simplest course was the best.

Returning to the hotel, he looked in, and saw that Mellish had been relieved by Wharton. He walked in quickly, like a man late for an appointment.

"Hallo, Mr. Marley!" Wharton twisted at his heavy black mustache, and turned his body so that the diamond in his necktie would flash to best advantage.

"Hallo!" said Jack quickly. "Has Thomas Briggs arrived?"

"Yes, 631."

"Good! I'm afraid I'm a little late. Don't bother to announce me. I'll go right up." And he was on his way to the elevator before the clerk could ask a question.

Now Wharton knew, as every man of consequence in Larkin City knew, that Thomas Briggs had some connection

with the Bendwater project. It therefore never occurred to him to question Jack's right to go to the sixth floor unannounced. When the opportunity came, Thomas Briggs had reasons for not enlightening him as to his mistake.

So Jack was carried up to the sixth floor, and made his way through the long corridors. He would have liked to stand outside the door of Briggs's room, to overhear as much as possible of the conversation that was going on within, for he felt that, in the circumstances, eavesdropping would be justifiable. But as it happened, a porter was sitting at the other end of the same corridor.

As he stopped before the door, the end of a sentence came to him through the open transom. The clean-cut words were in the voice of Thomas Briggs.

"—simply must be managed."

Jack waited as long as he dared, hoping to hear a reply, but there was no immediate answer; and, seeing that the porter was watching him, he knocked sharply on the panel.

A chair was pushed back. Steps crossed the room. The door opened. Thomas Briggs stared out at the unexpected visitor.

"How are you, Mr. Briggs," Jack began affably. "I happened to be in town and saw your name on the register. The clerk let me come right up."

As he spoke he advanced into the room, oblivious of any frigidity in Briggs's manner.

"Why, hallo, Bill Murdock!" he exclaimed, grinning at the embarrassed contractor. "And Mr. Garth!"

His astonishment almost declared itself in his voice as he caught sight of the Larkin City partner. Garth's wide face was a picture of white dismay, and he tugged nervously at his bunch of beard.

Thomas Briggs had the trait of showing surprise only by silence. Thus he was able quickly to adapt himself to unexpected circumstances.

"I am very glad to see you, Mr. Marley," he now said quietly. "Sit down. I was not sure until late this afternoon that I should be able to stop off here to-night. Then I sent a wire to Garth from the train, asking him to meet me here, and suggesting that he get word to Mr. Smith and yourself, if there was time. I go on to Denver in the morning."

The fluent explanation might or might not be true.

"Garth could not reach you," continued Briggs, "but he happened to run across Mr. Murdock, and brought him along."

"Lie number one," said Jack to himself.

"Murdock was just telling us," broke in Garth huskily, "that most of his men have been concentrated on the pipe. A very good plan."

"I didn't understand it at first," said Murdock, in a floundering attempt to improve the situation. "But I see now that it is better to get the skilled work done first. Then I can throw extra men on the dam masonry, if I have to."

Briggs disapproved of this line of explanation. He made his disapproval plain by jerking a chair noisily away from the wall and saying abruptly:

"Since Mr. Smith is not here, it would be futile for us to talk about the work. He is the only one who really understands it."

"Why not come up to the camp now, Mr. Briggs?" suggested Jack. "We'll rout Larry out and have a night of talk, and we can get you back here in time to catch your train in the morning."

"I am too old for anything quite so strenuous as that," smiled Briggs. "Besides"—his voice took on a graver tone—"since Garth and Murdock are here, I must use my time to discuss a project I am undertaking in Utah. You see, I have many interests, Mr. Marley."

"But I thought you wished to see all of us."

"I did—if it could be arranged without too much difficulty. But—"

"Well"—Jack arose—"I won't stay, then."

He thrust his hand into his coat-pocket and fingered the broken shilling. If it was a lucky piece, he hoped that luck went with the possession of it.

"Tell Mr. Smith that I wish the work all success," said Briggs.

"Lie number two—for sure!" said Jack to himself.

"I shall be happy to renew that mortgage," continued Briggs earnestly. His

sharp nose seemed to hack the air as he spoke. "And even if the work should not be done on time, you need not worry. I am already sufficiently convinced that you mean business — which, of course, was my one reason for insisting on a time-limit."

"Lie number three!" thought Jack. It seemed to him that Briggs was over playing the game. Suddenly it occurred to him to strike a blow for the defense.

"In that case," he said coolly, with a smile that was not free from contempt, "you'd better caution Murdock to burn no more blue-prints. Good night, gentlemen." He stepped into the hall and drew the door shut after him.

Descending in the elevator, Jack glowed with excitement. He realized that he must have left consternation behind him, and he could picture the astonishment of Garth and Murdock, and the glittering anger of Briggs.

They would wonder how much he knew. Murdock would tell the story of the charred piece of paper, and Briggs would curse the stupidity of his ally.

But as Jack thought the affair over, while he was walking slowly to the stable where he had left his pony, he saw that he had really done nothing to help Larry and himself. He could prove nothing against Briggs and Garth and Murdock in a court of law, and he had simply made plain to them the need of greater caution.

Not for an instant had he placed credence in Briggs's suave reassurances. The mere fact that the three men had met together in that hotel room was evidence enough that mischief was being planned; and the confusion of Garth and Murdock when he entered had been unmistakable.

Now they would revise their conspiracy and make it more effective. Larry and he were certainly up against it. For what could they do? Watchfulness would protect them only until the time when Briggs was ready to drop his mask.

Riding campward over the starlit reaches of the road through the lower cañon, he decided that the time had come to lay the entire matter before Larry. Worry or no worry, the engineer must not be permitted to continue in the notion that there was no real reason for suspecting Briggs. Some preparation must be made to meet the final issue.

As the wearied pony brought him at last to a point whence he could make out dimly the outlines of the camp and the serrated wall of the dam, he shook his fist at it and exclaimed:

"We *will* succeed! You *will* be done on time!"

CHAPTER VI.

The Walking Delegate.

THE next morning he drew Larry aside and told the story. He began with Briggs's visit to the camp and their first joint suspicions of the man, and he added his early memory of Briggs and what his stepfather had said.

Then he took the charred piece of blue print from his pocket and described how Murdock had acted when he saw it. He concluded with an account of his adventures of the preceding evening.

Larry listened gravely. "You have clinched the case against them, Jack," he said at last. "Briggs intends to freeze us out. There's no doubt about that now. I thought — but it doesn't matter what I thought. We've got to be ready for them."

"I didn't more than half think you would believe it, even now."

"Didn't you?" Larry smiled. "You must remember, Jack, that from the moment Briggs appeared you had more reason to suspect him than I had." That was as near as Larry came to making reproaches.

"You're right," said Jack; "but I didn't want to worry you until I was sure. Now, then, what's to be done?"

"Will you stay here on the job to-day while I take a run down to the city?"

"Of course!"

"Keep an eye on the general situation. Watch Murdock. He's back, isn't he?"

"Yes; he rode in early this morning."

"I will see if I can make arrangements with another contractor to rush some men up, if Murdock's men should lay off."

"How can you do that, Larry? It's a ticklish matter to talk about."

"Yes; but I can find out what we want to know without giving much away. It's all we can do just now, anyway. You see, Briggs won't have Murdock act until the time has almost expired. Trust him for that.

"There will be a strike, or something like it, at the last minute, when it looks as though we couldn't get help. But we will pull out somehow, Jack."

"Yes," said Jack, "we will! Shake!"

They clasped hands in a hearty grip of confidence.

So it happened that Jack did not ride to "Sweden" that day. He stayed in the close neighborhood of the drafting-tent. Murdock avoided him.

In the early afternoon a decrepit road-cart crawled up the road, and a short, stocky man, with prominent front teeth, climbed out and walked rapidly down to the sluices where the men were working. Jack watched him closely, and saw that he was talking earnestly to the men, who noticeably slowed their work to listen. Murdock did not appear to see the man.

Jack walked down to the corral, where Madden was giving the stranger's horse a feed of hay.

"Who is that fellow that just came up?" he asked.

The old Irishman answered readily enough. "His name's O'Neill."

"What does he want?"

"He's the stone-mason's delegate. He wants the boys to organize."

Jack asked no more, but hastened toward the place where Murdock stood. The contractor did not wait for a complaint. Apparently catching sight of the walking delegate for the first time, he took a few steps toward him and bawled:

"Here, you! Get off the job. You can't talk to these men durin' hours."

"Aw, what's it to you?" O'Neill's prominent teeth gleamed.

Murdock halted, and, as Jack came up to him, remarked in an undertone:

"That's the way the unions bully us. If I kick that fellow off, he'll spoil me on some city job when I have to use union men."

"Do you mean to say you're going to let that fellow call your bluff?" demanded Jack.

"What else can I do?"

Jack shrugged his shoulders, then strode toward the sluice. "O'Neill," he called. "Come here a minute."

The delegate did not budge. "Who are you?" he sneered.

"Never mind who I am. Come here." Jack smiled grimly, giving his command the suggestion of a dare; and O'Neill, feeling himself challenged, came cautiously forward.

"How much are they paying you for this?" asked Jack in a low voice.

"What you talking about?" exclaimed O'Neill.

"I asked how much you were being paid for making trouble here."

"Paid!"

"Keep cool!"

O'Neill thrust his head forward. "That's the way your kind of men always sneers at honest working men!" he exclaimed bitterly.

"Honest working men! You're no honest working man! You're one of those fellows who make honest working men look like monkeys!"

"I'll knock your block off in a minute," raged O'Neill.

"Hold on! I asked how much you were paid, because I want to raise the ante. I'll give you more than the other fellows."

"You're talkin' through that Wild West hat of yours. Who are you, anyway?"

"I'm one of the owners of this property." Jack paused. "And," he added, "my partner and I own just as much of it as Aaron Garth. Do you understand?"

"No," snarled O'Neill, "I don't understand."

"Well, are you ready to talk business?"

"What do you mean by talking business?"

Jack did a rapid problem in mental arithmetic. After putting his share into the company, there had remained to his credit at his Eastern bank a little more than six thousand dollars. A third of that he had spent for various purposes, and the remaining four thousand was all the free money he had in the world—or was likely to have, unless the dam was finished on time. He could not offer

it all; and Larry, he knew, had few resources.

"Well," he said at last, "I mean, say, a couple of thousand."

O'Neill laughed. "I guess there ain't any business for you and me to talk," he jeered.

"Perhaps I can make it more."

"Cut it out!"

O'Neill moved away, and Jack realized that he must have struck far below the sum promised by Briggs and Garth. The knowledge of his helplessness made him angry.

"Then get off this property," he called after O'Neill. "Get off now, or I'll put you off."

The delegate swung about. "*You'll* put me off, will you?"

"Will you go quietly?"

O'Neill laughed. "I won't go till I get good and ready," he said.

Jack glanced at Murdock. The big contractor remained in his former position, watching the little drama with a non-committal air. The men at the sluice had stopped work entirely. Apparently they were getting great enjoyment out of the situation.

O'Neill looked ugly. His upper lip was drawn up, and his teeth were more prominent than ever. Apparently he felt at home in the prospect of a rough-and-tumble fight. He was shorter than Jack, but heavier.

Nevertheless, Jack was committed. He felt vaguely that he was making a mistake in taking the aggressive, but there seemed to be nothing else to do. Walking slowly to O'Neill, he said:

"Come, now, I don't want any trouble, but you have no right on this work. Murdock has told you to go, and I have told you to go."

O'Neill did not answer. Jack, still smiling that grim smile, laid his right hand on the delegate's shoulder. He did this with full knowledge of what was likely to follow.

At once, O'Neill made a vicious swing with his right. Jack leaped back, and the blow missed him, the force of the swing being so great that O'Neill spun around and almost lost his balance. His failure enraged him. He lost all his prudence and, just as Jack had hoped he would, rushed forward.

He struck out, first with his left, and immediately afterward with his right. Perhaps he hardly expected the blows to land. His intention must have been to get to close quarters, where he could rough it with his extra weight.

Jack warded off the two blows. He had expected them. Almost at the same instant he swung his left foot, so that it struck the inside of O'Neill's advancing left leg, a little below the knee. The result was astounding. O'Neill plunged heavily to the ground, striking on his right side. His cheek plowed into the soil.

Jack stepped aside. He had struck no blow with his fists, and the kick had been so quick that its connection with the fellow's tumble might easily have passed unnoticed by the onlookers.

Even if they had observed it, they might think that he had lost his balance parrying O'Neill's right-arm blow, and had swung his foot around to save himself from falling. He did not wish to seem even to defend himself aggressively against the delegate, and he was glad to see that the faces of Murdock and the workmen at the sluice showed merely surprise.

O'Neill slowly rolled over on his back and stared at Jack in a daze. He was bruised and shaken.

"I don't often boast," said Jack in a low voice; "but I'm going to tell you something, O'Neill. I boxed ten rounds once with a middleweight champion, and—well, he didn't put me away.

"If you want any more trouble, just come at me again. You'll go down and out, next time. If you don't want more trouble, clear out."

O'Neill was sitting up. "I don't want any more," he said sullenly. "There are better ways of fixing you."

"Thank you," replied Jack. "My friends shall hear about that threat. If anything happens to me, they'll give you what's coming to you."

O'Neill got to his feet, and, without a look or a word, walked away to the corral. Two minutes later he was driving down the cañon.

Murdock spoke up abruptly. "That was a bad move," he said. "There's sure to be trouble now."

"Not if you know your business," re-

plied Jack. Then to the men at the sluice: "I call you to witness that that fellow attacked me."

"You laid your hand on him first," blurted Murdock.

"Not in a way to hurt him. And you, men, I hope you understand that there isn't any objection to the man's coming and talking to you about organizing, so long as he doesn't bother you while you're at work."

With that, he went back to the drafting-tent. More than ever, he was concerned about Murdock's attitude, for it was obvious that the contractor would have let the delegate have his way—even shaming himself weakly before his own workmen rather than send the bully about his business.

Jack was troubled, too, by the consciousness that Larry, with his knowledge of labor organizers, would have handled the situation differently; would not have permitted O'Neill to come to the point of physical violence; would have found a way to put him in his place by making him ridiculous. But when Larry rode up from Larkin City and heard the story he made no word of blame.

"You did the natural thing," he said. "But it isn't what you would have done, Larry."

"How about things in the city?" asked Jack. Then, as Larry hesitated: "Don't be afraid to tell me."

"There isn't much to tell," said Larry dejectedly. "Apparently, not a contractor will be able to supply us with men for six weeks. Garth has got all the stone-masons tied up, building a new stamping-mill."

"Garth!"

Larry nodded.

"Did you see him, Larry?"

"Oh, no! What was the use?"

"Sure enough," said Jack. "Well, buck up! They haven't downed us yet, Larry. Let's go right ahead with the work, just as if nothing were wrong."

"Yes, that is what we will do."

"And remember this, Larry: there's always some way out, if a man keeps his eyes open to find it."

(To be continued.)

NOT ENOUGH SLACK.

A SWITCHMAN and a brakeman were once beating their way across the country. Both were without funds, but the switchman had nerve and managed to feed both of them. However, he finally became dissatisfied and told the brakeman he must make an effort himself. So the next house they decided to hit the brakeman advanced, knocked on the door and asked the lady of the house:

"Could you give a poor man a bite?"

"Certainly," said the lady, and kicks a bulldog out.

The brakeman started round the house with the dog behind. Meanwhile the switchman stood outside the gate. Round came pursued and pursuer.

"Open the gate!" yells the brakeman. Around they went again

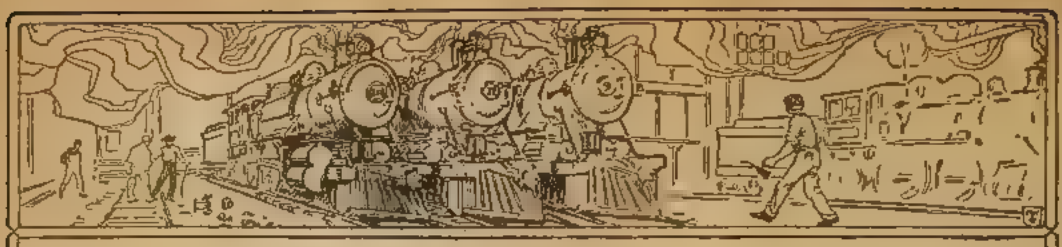
"Open the gate!" cried the brake agent, but still the switchman stood.

"Why don't you open that gate?" panted the discouraged man.

"Can't do it, pal," he said. "You'll have to give me more slack if you want to make a drop of that bulldog."—*Ex.*

WHEN DOES A JOURNEY BEGIN?

AS to just when or at what point a traveler's journey is considered as begun is a question that has been put up to the Interstate Commerce Commission to settle, says *The Railway and Engineering Magazine*. It is asserted for some lines that as soon as a traveler's ticket has been punched at the gate entrance to the train-house preparatory to boarding a train, he is actually on his way. Although he may change his mind and not proceed farther, they refuse to assent to a redemption of his ticket. An administrative ruling by the commission is expected; and if this is not accepted as final, a formal hearing may follow to test matters.



A NINE OF ENGINEERS.

BY FREDERICK SANDERS.

Written for "The Railroad Man's Magazine."

NO doubt, you know, it has been often stated,
That baseball stars are greatly in demand;
And the scarcity each year grows unabated,
Though scouts have searched throughout this baseball land.
There's a scheme, I've wondered why they haven't tried it,
For to me a very good one, it appears;
If I owned a team and wished to win the pennant,
I'd choose my men from railroad engineers.

Every player who has won fame on the diamond,
In his work relies on signs to some degree;
Every engineer that ever pulled a throttle
Is one well versed in "signals," you'll agree.
His ability the bases to encircle,
If his past you take as a criterion,
Would compare with any of the celebrated
He's trained in knowing how to "make a run."

At bat he would be rated with the leaders;
His eye is true, and steady are his nerves;
The strike-out route he would refuse to travel,
He's too experienced in "hitting curves."
Another fact the dope reveals, worth mention,
He'd grace the pitcher's box, so it would seem,
With qualities that go to make the majors;
He has the "speed," in other words, the "steam."

He'd make a "short stop"—this he oft has proven—
He'd "pick up" everything that came his way;
And if, perchance, it was found necessary,
He'd "switch," and any "station" he could play.
He'd cause no demonstration on decisions
That were close and would affect the final score.
He'd show no willingness to "run the mogul"
Of the game—for he has been "called out" before.

$56,000,000 a Year for Ties.

BY RICHARD MAXWELL WINANS.

THE wooden tie on which the steel rail rests is one of the very important factors of the right of way. It gives a road-bed elasticity as well as solidity. And, strange to say, the wooden tie has proved superior to the steel tie.

The tie problem is an all-important one with the railroads just now. More trees must be grown or there will be a serious slump. There are many people who own abandoned farms or waste stretches of land who will learn something by reading this article.

Oak, and Particularly White Oak, Is the Preferred Wood; but a Great Many Other Varieties Are Used, and Some Have To Be Treated Chemically.

DURING the year 1908 the railroads of the United States—steam and electric—purchased over 112,000,000 cross-ties, at an average of fifty cents a tie, making a total of over $56,000,000 for this part of railway road-beds alone.

And the cost of ties is not diminishing. Indeed, it is increasing. For serviceable stability, the wooden tie has not been equaled—and it is frequently reported that some day soon there may be a famine, as the supply of tie-producing timber is slowly being exhausted.

James J. Hill, the veteran builder of the Northwest, and Edward H. Harriman, the little colossus of roads, have not overlooked the serious side of this rumor. They have even proposed planting both sides of their track with trees of the tie-producing varieties—making a parkway through which the trains would pass. Of course, this is a project of some magnitude and expense, and could only be put into effect by men who build roads not only for to-day, but for ages to come.

Both are practical men, and if they carry out this scheme it will be in a practical way to a practical end, so the thousands upon thousands of miles of waste space beside their roads is to be utilized to produce a supply of timber for the future use of these roads. It is probable that they expect to see ties laid that come from the trees growing along their right of way.

Railroads That Own Forests.

So far, only two or three of the railroads of the United States have attempted to provide a future timber supply for

their roads. The Pennsylvania system and the Santa Fe system are both managing their timber lands in accordance with the latest dictates of scientific forestry.

The Pennsylvania system has a large supply of standing timber, which it is gradually increasing through constant annual plantings. The Santa Fe system is planting many thousands of eucalyptus-trees in southern California, especially purchased for this purpose. The Illinois Central Railway at one time attempted the raising of hardy catalpa-trees for cross-ties, but was unsuccessful.

If the increase in the visible supply of lumber was in proportion to the increased demand, there would be little cause for any grave concern as to the conservation of our forests. However, the opposite condition exists. The supply decreases and the demand increases. This is particularly true of the railroad cross-tie and the timber of which it is made.

Over $56,000,000 a year for railroad ties gives pause for thoughtful concern. Suppose, for instance, that the consumption of ties goes on doubling itself every two years! Where would the material come from to make them after a few years?

If the proportion of increase should hold, the number purchased by the steam and electric roads this year would amount to 224,000,000; in 1911 they would use 448,000,000, and by 1913 there probably would be required the enormous total of 1,000,000,000 ties to supply the demand.

Increase in Trackage.

According to Poor's Manual, the total trackage in the United States on January 1, 1905, amounted to 293,937 miles. The same authority shows the total trackage for 1908 to be 324,034 miles, an increase of over 30,000 miles of trackage in three years. And we are still laying new rails and driving spikes on newly constructed track!

From coast to coast electric lines, both suburban trolley and high-speed, long-distance lines, are being built to an extent that was not dreamed of ten years ago.

There are many not directly interested in railroads who have looked far enough into the future to see the necessity of growing a supply of tie timber for future use. It is learned that Maude Adams, the actress, who has a sense of business foresight as well as the ability to act, purchased some years ago a tract of land on Long Island, which she planted to spruce.

This, she said, would be her drawing bank-account for old age. She could hardly have selected a better investment—an investment that, without further care or worry on her part, would go on piling up principal as well as interest for years to come.

Looking to the Future.

It is learned, also, that many other individuals, both East and West, have planted available tracts. By making annual plantings, these tracts of land will yield a constant source of income of very substantial proportions for many generations to come. The advantage of this tree-growing is that once the land is set to the trees, it requires very little attention until time to cut and market the timber.

If fifteen hundred trees are set per acre, a small tract of, say, two hundred acres will carry 300,000 trees. In fifteen or twenty years, according to variety and size, this acreage should cut three or more ties to the tree, or at least 900,000 ties, and these, if sold at the average price of fifty cents per tie, the present rate, would put about $450,000 on the credit side of the owner's bank-account.

Since land may be utilized for this purpose that would be of little value for cultivated crops, the original investment would be of small moment. The cost of the plantings could be reduced to a minimum by the grower raising his own seedlings.

1907, the Banner Year.

During 1907 the railroads purchased 153,700,000 cross-ties, the greatest consumption of ties ever recorded. These cost the railroads, at the point of purchase, the neat sum of $76,850,000, or an average of fifty cents per tie. The falling off in 1908 is accounted for by

the general business depression that affected every line of industry.

There is a wide range of woods used for cross-ties, there being listed separately fifteen classes or species. The oaks are at present and always have been by far the most important. For 1908 the oak ties amounted to more than 48,000,000, or forty-three per cent of the total quantity purchased. The reports show that next to these ranked the Southern yellow pines, with 21,500,000, or nineteen per cent of the total. In some previous years the per cent of oaks has ranged close to fifty per cent and the pines to twenty-five per cent.

Oak and Pine Most Used.

However, the oaks and pines furnished nearly three-fourths of all the ties bought by the railroad companies in 1908. Cedar and chestnut supplied more than 8,000,000 ties each, with Douglas fir trailing very close to that number. About 4,000,000 tamarack ties were used; nearly 3,500,000 of cypress ties; and, in round numbers, 3,000,000 each of Western pine and hemlock. Spruce, beech, gum, lodge-pole pine, white pine, and redwood, and several other woods were used in smaller quantities.

This gives some idea of the range of territory in which cross-tie timber may be grown, there being hardly a tree-growing State in the Union that is not adapted to the growth of one or more of the varieties.

While the reports show that the oaks, and particularly the white oaks, have always been the preferred woods, and still form a large per cent of the total, the increasing price that the roads have to pay for satisfactory oak ties are forcing them to look more and more for substitutes.

A Variety of Woods.

This accounts for the variety of woods that are now being used. White oak, untreated, makes a tie which gives excellent service for many years, but it has been found possible to take woods which are not naturally durable, give them a treatment with either creosote or zinc-chlorid to prevent decay, and thus get much longer service from them than can be secured from untreated oak.

Among the woods that have been most largely treated so far are the yellow pines, particularly loblolly pine, Douglas fir, Western pine, and lodge-pole pine.

There are two kinds of woods listed in this year's statistics for use as ties which previously had not been reported in sufficient quantity to justify listing them separately. These are gum and beech. In 1908 the purchase of gum ties exceeded 260,000, while hardly more than 15,000 of them had been reported for any previous year. Of the beech ties, the purchase in 1908 amounted to nearly 195,000, against but little more than 50,000 in 1907.

These woods are not suitable unless given preservative treatment. Their increased use, therefore, is one of the many results of the progress of wood preservation in the United States. For many years beech has been one of the principal woods used for ties in Europe, where its value, when given chemical treatment, was long ago recognized.

It is said that it is not uncommon for European roads to secure from twenty to thirty years' service from beech ties. Untreated, they would be absolutely useless.

More Ties Needed.

As far back as 1905, at least a dozen American roads were conducting experiments in preservative treatment of ties. At present nearly twenty five per cent of the ties purchased are given one of the several preservative treatments.

The hemlock and tamarack ties are among the cheapest used, being listed in the government statistics at a cost of thirty three and thirty-six cents each, respectively. The Chicago and Northwestern Railway, however, estimates that these ties, including freight and labor charges, cost, untreated, when laid for use west of the Mississippi, about seventy-five cents apiece.

When treated with zinc-chlorid the cost is about twelve cents per tie, making the total cost of the treated tie eighty-seven cents.

On the basis of an annual charge, the following comparative statistics are de-

rived—the basic data used estimates the life of an untreated tie at five years, with an interest rate of four per cent.

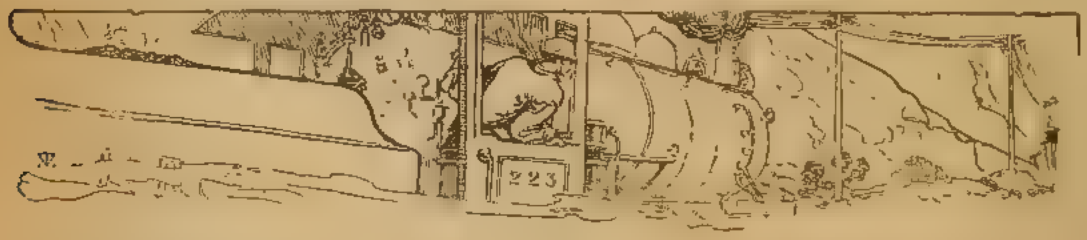
Being almost impervious to the preservative fluid, hemlock and tamarack are the hardest and most expensive of all woods to treat. With the more porous woods better results are obtained, and the life of the tie is increased in proportion.

Just at the present moment, the great problem is to get the ties to treat; the problem of a supply to meet the demand—a demand that will naturally increase with every year, and that will advance prices as the supply diminishes.

Only one-fifth of our forest area is in national or State forests, and that four-fifths is either in private hands or likely to pass into private hands. Out of a total of 700,469,760 acres of wooded area, the government owns but 144,896,485 acres, with 2,582,711 acres in State forests, and the remaining 554,313,511 acres are in private control or in unreserved public forests.

It is claimed that the average age of the trees that are being felled this year is not less than one hundred and fifty years. The lumberman could not afford to replace them, even were he blessed with the prospect of unequaled longevity.

In consequence, there arises the need that the State and national governments, which do not need to look for so high a rate of interest as the private investor, and which are concerned with the promotion of the general welfare, should assume the responsibility of providing a future supply of timber.



HOLLAND'S "CONTROLLED" RAILWAYS.

Where the Principle of Government Ownership Is Resulting in a Severe Economic Problem.

IF recent newspaper accounts can be relied upon it would seem that the railroads of Holland are in danger of being legislated, or "controlled," out of existence. Holland, according to these reports, has carried the principle of government control of railroads to a great extreme, at the same time without accepting any responsibility in the way of guarantees, and without showing any desire to take the logical step of government ownership that its course, in the long run, would render inevitable.

The government itself owns 1,107 miles of line, which is operated in two separate systems by two private companies. The government has the fullest power of control, and proceeds on unlimited competition.

The companies cannot make any changes in their schedules or tariffs without first receiving the permission of the minister of railways. The result is a congestion of unremunerative train service.

Economies cannot be effected by mutual agreement, as this means of serving the public and paying dividends is frowned upon by the government department. If it so desires, the government may take over the railroads any time up to 1915 by giving the companies one year's notice, and on the other hand the companies may insist on government purchase if their dividends are no more than three and one-half per cent for two years in succession.

In 1907, the dividend was down to the prescribed minimum, and 1908 was little better. Therefore, the administration, finding itself perilously close to being compelled to take a step it wished to avoid, has appointed a royal commission to investigate the situation, and it is believed that its cast-iron and uneconomical policy will be sufficiently revised to permit the companies to pay sufficient dividend to keep them on their feet, even if tottering.

Recent Railroad Patents.

BY FORREST G. SMITH.

Describing an Air-Cooler for Electric Locomotives, an Automatic Turntable, a New Idea in the Construction of Dump-Cars, a Decided Improvement in Car-Fenders, More Switch and Point Inventions, and a Valuable Contrivance for Train-Shed Ventilation.

TO COOL THE MOTORS.

Device for Overcoming the Tendency to Heat Shown by Electric Locomotives at High Speed.

ONE disadvantage incident to the use of the electric locomotive lies in the fact that the motors soon become overheated under high speed. A device to accomplish this has been invented and patented (No. 929,587, July 27, 1909) by Max R. Hanna, of Schenectady, New York, and has been adopted by the leading electric company in the United States.

It consists of one or more fan-casings which are mounted in the cab of the locomotive, and are preferably driven from the motors themselves. Leading from these blower casings are conduits which conduct the air blast generated therein to a point beneath the locomotive, where it is directed upon the motors, thus keeping them cool during the entire time of travel.

When it is considered that even a small blower-fan will give quite a blast of air under high speed, it will be appreciated that the device is entirely practicable.

GUARD FOR SWITCHES.

Will Replace a Costly and Uncertain Design with One That Will Last Longer and Be Cheaper to Install.

A VERY decided improvement in foot-guards for railway switches and the like is disclosed in a patent (No. 929,986, August 3, 1909) issued to Frederick W. Riser of Chicago, Illinois. As is well known, metallic castings are now employed for this purpose, and require to be bolted or spiked in place and frequently renewed at considerable expense

Mr. Rizer, however, has conceived the idea of filling in such spaces as are liable to catch and hold the foot of a person with concrete or some other material which may be applied in a similar manner and will harden when allowed to set. Such a filling will of course pack beneath the heads or treads of the rails, and will not be liable to become loosened. This will also last for almost an indefinite period without renewal or attention of any sort. At the time of filling in the material, a channel or groove is formed in the surface for the flanges of the car-wheels where necessary.

FOR TURNING THE TABLE.

An Automatic Device to Render Easier the Work of Roundhouse and Yard Men.

THE operation of the turntables now in use is laborious, to say the least, and frequently a comparatively large force of men is required for this purpose. It has been proposed to employ some mechanical motor suitable for the purpose of rotating the tables, but while in this instance the necessity of several yardmen would be eliminated, considerable expense would be involved in installing the motors and mechanism incident to their use.

Michael J. Leonard, of Long Branch, New Jersey, has secured a patent (No. 928,675, July 20, 1909) which discloses quite a new idea in turntables, and one which seems to fill the bill in every particular. In fact, the

turntable invented by Mr. Leonard is almost entirely automatic in its action, and requires but a single attendant.

The table is so constructed that when the locomotive is run upon it, the pilot of the locomotive engages with a trip interposed in its path, and by the pull exerted upon this trip, a weight which is located beneath the turntable is pulled from one end of a beam upon which it is mounted toward the other end, and past the axis, or center, of the table.

This weight then acts to rotate the table at the proper speed until a brake is applied by the attendant, whereupon the engine is free to move onto another track, leaving the table in its original condition for further use

Means are provided for locking the table at the proper points, and are under the control, also, of the attendant.

A SIMPLE DUMP-CAR.

Will Relieve the Strain from the Weakest Part and Put Operation Under Better Control.

IN nearly every form of dumping-car now in use, the entire weight of the load is sustained by the mechanism employed for raising and lowering the dumping doors, and where such means include chains among its other elements, a weak link will frequently result in premature discharge of the load and possibly a derailment. Where such is not the case, on the other hand, means such as latches are employed, but it is necessary for the train crew to operate them manually, and this requires considerable time.

To overcome these disadvantages and at the same time to provide means which will act automatically to lock the doors when swung up to closed position, Harvey Allen, of Pittsburgh, Pennsylvania, has in a device covered by patent No. 929,268, July 27, 1909, a combined dump-car door operating and holding or supporting means.

The construction of the car disclosed in the patent to Mr. Allen is of the ordinary type, except that a shaft is mounted along each side of the car near the bottom, and to each shaft are connected chains which connect also with the doors which are to be raised and lowered. In the ordinary form of car, these chains connect directly with the doors, and other means is provided for holding the doors in closed position, but in this device a hoop-shaped link is connected to each door and to each chain.

When the shafts are rotated to wind up the chains and raise the doors to closed positions, these hooked-shaped links are drawn over the shafts and act as supporting hooks for the doors so that the chains are relieved of all strain.

A FENDER THAT FENDS.

Following the Course of the Trucks, It Is as Effective on Curves as on Straight Track.

IT is very probable that as many, if not more, persons are struck by street railway cars while on curves as when on a straight stretch of track. When this occurs the risk is even greater, for the reason that the present fenders are fixed with respect to the platforms of the cars, and swing out beyond the curve, leaving a clear space for one to fall beneath the wheels.

Also persons are frequently struck by the fenders as they swing out beyond the track line. With the object in view of remedying this defect of the present fenders, Henry D. Gardy, of Philadelphia, Pennsylvania, has patented (No. 929,205, July 27, 1909) a construction of fender which will turn with the car trucks so as to at all times follow the track

This fender is of substantially the ordinary construction except that it is swiveled to turn upon the car platform and has connections with the forward truck which act to turn it, when the car is rounding a curve, so as to follow the track and more nearly the general line of travel of the car.

Notwithstanding the fact that the fender is so mounted, it may be tripped as readily as can the ordinary fender, by the motorman, to drop upon the track.

NEW POINT CONNECTION.

Device Which Overcomes a Long-Standing Difficulty and Is of Simple and Effective Construction.

IT is a difficult matter to make adjustments for wear of switch-points under present conditions, owing to the character of the connection between the switch-point and the switch rod, this connection being such that either no adjustment is provided for at all, or only a very insecure one. In a patent (No. 928,931, July 27, 1909) issued to Phillip B. Blish, of Chicago, and Charles M. Bruff, of Chicago Heights, Illinois, there is disclosed a novel form of connection for switch-point and rod which will

not only allow for adjustment, but will hold the parts securely in set position.

In carrying out the invention, a hole is drilled in the switch rod, and a box-like sleeve is fitted over the rod and has its upper and under surfaces roughened or toothed. These sides of the sleeve are also slotted and a bolt is passed through the slots and the opening in the rod, and also through the ends of a clip, which is fitted over the sleeve and has toothed ends bearing upon the toothed surfaces of the sleeve.

When the bolt is tightened, the sleeve will be securely held upon the rod at the position to which it is adjusted, and as this sleeve has connection with the switch point, the point is also held at adjustment. The value of the device lies in the fact that there is no possibility of the sleeve slipping, and the switch-point is therefore held positively in adjusted position upon the rod.

A MOTORMAN'S FRIEND.

Improved Vestibule Window-Cleaner for Ridding Front Glass of Snow and Ice Without Exposing Operator.

CONSIDERABLE annoyance is caused the motormen of street railway cars during the winter months by the accumulation of snow and ice on the windows of the car platforms or vestibules, and where time cannot be spent in removing this snow and ice at intervals, the motorman is frequently compelled, in order to see ahead, to open the window and subject himself to the cold.

While a number of devices have been patented for the purpose of removing this accumulation without the necessity of opening the window, they have nearly all been so complicated as to render them impracticable. A very simple, cheap, and efficient device for this purpose is, however, shown in a patent (No. 930,185, August 3, 1909) issued to S. Jones, of Finleyville, Pennsylvania.

In carrying out the invention disclosed in the patent, a short sleeve is fixed in one lower corner of the front window frame of the car vestibule, and a short shaft is mounted to rock in this sleeve and carries at its outer end an arm having secured thereto a strip of felt or other suitable wiping material.

Normally, this arm is held in raised position beside the near side of the window-frame and practically out of view, but by turning the shaft slightly, the arm may be made to sweep across the window pane, removing any snow or ice that may have collected thereon. A spring holds the arm raised, and as soon as the shaft is released this spring returns the arm to its normal position and holds it there.

GOVERNOR TROLLEY-POLE.

Air Cylinder Which Will Control the Pole When Wheel Leaves the Wire, and Will Be Easy To Keep in Order.

IN mounting trolley-poles upon cars, it is usual to provide some sort of spring-controlled means for preventing undue upward movement of the trolley-pole, or to allow the pole to drop after it has swung up after leaving the wire.

Such means is of course provided to prevent the pole coming in contact with the overhead hangers for the trolley-wire. A very simple means for accomplishing this result, and one which will not require any considerable expense to install, is disclosed in a patent (No. 930,698, August 10, 1909) issued to Major D. Self, of Bessemer, Alabama.

Mr. Self contemplates mounting upon the roof of the car an air cylinder, the piston of which is connected directly to the trolley-pole. A pipe leads to this piston, and in the pipe is a valve which has its stem projecting into a slot in an arm hung also from the pole.

As soon as the pole jumps the wire, the sudden upward movement of the arm opens the valve and allows air to enter the cylinder, thereby immediately lowering the pole. The usual rope connected with the pole is then pulled to further lower the pole, whereupon the valve will be closed and the wheel may be replaced on the wire.

LETTING IN FRESH AIR.

Simple Mechanism by Which Ventilation May Be Secured Without Constant Exposure to Weather.

HENRY J. SCHLACKS, of Chicago, Illinois, has patented (No. 929,115, July 27, 1909) an improvement in roundhouse construction which will provide for perfect ventilation, not only of roundhouses, but also of train-sheds and other similar structures to which it is applied. In the roof of the train-shed or other building of like character there are provided a number of openings or flues for the escape of smoke and gases given off from the smoke-stacks of locomotives, and over each of these flues there is mounted a cap or shutter.

THE LEAP OF OLD 637.

BY EMMET F. HARTE.

There Was a Gap in the Trestle — But She Got Over It Without Much Trouble.

HALF an hour before train time, I passed through the gate and sat on a baggage-truck near the iron fence in the Ninth and Broadway Streets station, Louisville. The train nearest me—eight electric-lighted palaces, besides mail and baggage-cars, drawn by a 100-ton L. and N. racer—was the one by which I should depart.

I became aware of a small, gray man sauntering along by the big engine—a grizzled, stocky figure of a man with a slight roll in his stride, seemingly engrossed in his own thoughts. He passed along, stopped, examined her outlines with an admiring eye, patted her ponderous cylinder as one might pet a child, and stood listening to the purr of her steam. Presently he noticed me, and strolled over to the truck.

"Ain't she a beauty?" he queried, jerking his thumb in the direction of the engine. I assented, and after a pause, to keep up conversation, mentioned that the weather was warm.

"Quite so," he said. "Quite so, but it would be cool on a moving train. Mighty fine to lean out of a cab and watch her throw the right of way behind her on a night like this; mighty fine!"

I remarked that he must have leaned from a cab in his time, and he nodded with some pride

"Yes," he said, "I wrestled the reverse-lever and eased the steam into the cylinders on one of them for sixteen years. Not a big girl like that one, though; there wasn't any like her in my day—I quit in '86. I come down here once in a while to hear the sputter of an engine and to pat one on the side sort of familiar, but I haven't been in a cab or even aboard a train for twenty years. I run a grocery-store," he added with an apologetic air, as if it was an occupation of small renown and to be mentioned without enthusiasm.

He relapsed into silence, and I waited.

"Excuse me," I said finally, "but I am waiting for you to tell me about it."

"About what?" he asked.

"Well, about your most thrilling experience!" I said.

"Never had many thrills," he said. "Used to have lots of hard work and plenty of wrecks and very little pay; but thrills, as you call them, we didn't pay much attention to. I worked on the old C. O. and S. W., a rickety old road in those days, but some better, I understand, since the I. C. got it.

"It was fierce then, though; track so loose that after a rain we could squirt water from under the ties into a dog's eyes twenty feet away. The coach windows used to rattle and clatter, and the bell on the engine never stopped

"Johnny Westover, who used to run the accommodation from Cecilia to Louisville and back, went down to Charleston about the time they had the earthquake, and they said he woke up when things began to dance and rattle, and said, 'Muldraugh's Hill, by Gadfrey!' He thought he was on his old run.

"We used to get hot boxes regular right by a big watermelon patch; and while we'd stop to cool, Pete and Sam, our two darky brakemen, would go over and get some big ripe ones.

"We rarely ever got from one end of

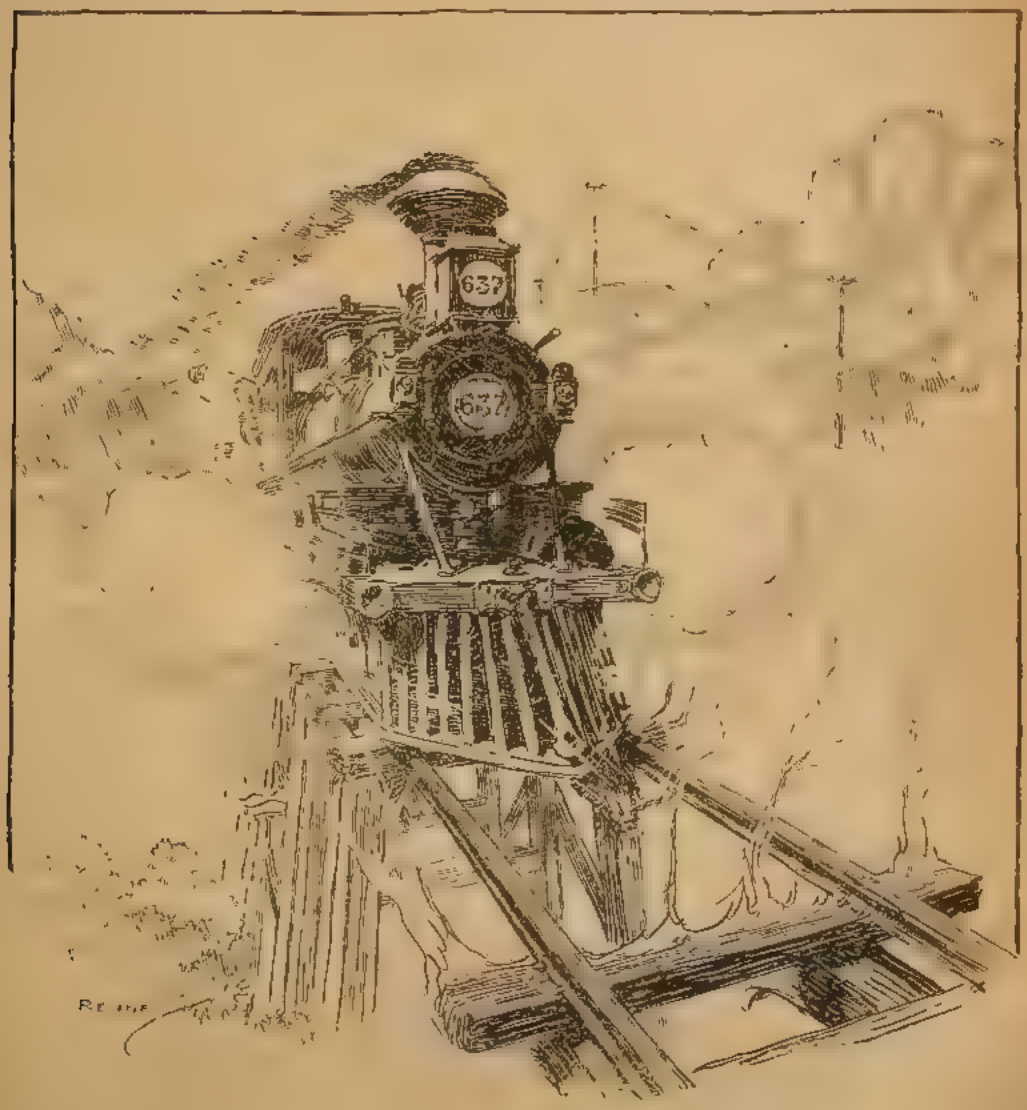
the division to another without going in the ditch; and for a gondola to jump off, run a hundred yards or so on the ties, and then jump back on again at the first curve, was so common that half the time we never knew it unless a truck happened to turn sideways and tear up the track; then we'd find it out for about twelve hours.

"In the winter we'd buck snow, and in the spring the Ohio would get on a rampage, and we'd get laid out by floods.

"One time we got into West Point about midnight, and the river was out in the bottoms. There used to be an old wooden drawbridge across the Salt there that was built like a culvert—nothing above the stringers but ties and rails, not even a hand-rail.

"The Ohio was backed up in the Salt, chock-full, and there wasn't any bridge in sight—just black, lapping water. Old man Morrison and me went down and set sticks to see how fast she was rising, and she was crawling pretty fast.

"'What'll we do?' said the old man



"I PULLED HER WIDE OPEN, AND SHE TOOK IT LIKE A HUNTED DEER."

—we hadn't been home for forty-eight hours, and if we got hung up there we might be out for two weeks more.

"'Cross her, if the bridge is there,' I said; and we all climbed on, and I let 637 walk out on that bridge mighty slow and careful, with the crew ready

to pile off if she dropped. The bridge was there, all right, four inches under water, and we got across.

"Old 637! There was a good old engine! She knew me just as well as a horse or dog knows their masters, and she never went back on me, not even the last trip when I quit the road. She killed two engineers after I left her, and she's gone to the scrap-pile long ago, but she never did me a mean trick in all those years.

"How did I happen to quit? Yes, I know old-timers are not supposed to ever quit, but sometimes they do. See these gray hairs? I reckon I got most of them one night on that same old Muldraugh's Hill.

"You know how the old line winds in and around that old knob and all those old wooden trestles. There used to be nine of them trestles—some away up in the air, too built on short curves; one had a reverse curve in the trestle itself.

"I was pulling a local freight that year, and we had quite a bit of business along the old Chesapeake, hauling dried apples, tobacco, sorghum, and such like, and we never had any schedule except to start out on—we got back when we could. Ben Austin was running the way car, and the two darkies, Pete and Sam, were braking.

"I had a fireman named Brady, who was young and enthusiastic when he wasn't drunk, and a hoodoo to the train when he was, according to the darkies. Whenever Brady came out loaded, Pete would roll his eyes and say, 'Nother wreck this trip,' and shake his head.

"That last trip was sure unlucky. Brady was drunk, two cars went into the ditch down by Big Clifty, we killed a cow at East View, and a gang plank broke at Bethlehem and let a barrel or something fall on Austin's leg, mashing him up considerable. We were anywhere from eight to ten hours late when we hit the hill, and I shut old 637 off when we started down and sat back, contented like to let her roll easy.

"It was about seven o'clock of a summer evening, quiet and peaceful, the fireman standing in the gangway enjoying the breeze; everybody feeling comfortable except Bob Austin, who was nursing his smashed leg back in the caboose. We had a pretty fair train, twelve or fifteen cars, mostly loaded, and we pushed along about thirty-five miles an hour, snug and cozy.

"Down around the hill we bowled, over the trestles, and around the rocky points. I was thinking about supper and a smoke on my back porch at home when we came out of a short curve in a shallow cut and out onto one of those hundred-foot high bridges, and my breath stopped.

"About the middle, the bridge was burned in two.

"It took me about a second to pull a screech for brakes, yell for Brady to jump, throw the engine into the back motion, and give her steam, but in that second we were out on the trestle, and the valley looked a long ways below. The fireman jumped before we had hardly left the embankment, and wasn't hurt. The rest of the crew got off, Austin with them, some way, before the caboose got out of the cut.

"As for me and 637, we were out in the air; behind us, a loaded train shoving too hard to be stopped; before us, a gap in the trestle, where for three or four feet everything was gone but the rails. When I saw how it stood, I got up and threw her into the forward like a maniac—I guess I was crazy.

"Then I gave her steam, and we jerked away from the train like a horse when you cut it with the whip. Then, when we reached the gap, I pulled her wide open, and she took it like a hunted deer. She shivered one instant, settled, and sunk—then she rose and leaped, sir, she leaped across, and we went out on the firm track beyond.

"The rest of the train went through, the box cars dropping and crashing, end over end, to the valley below, and the farmers used them for kindling wood afterward

"I took my engine in and resigned. I haven't been in a cab since. I read about these young lads with their Twentieth Century Limiteds, and their racing for the mail contracts, and all that, but it's too hard on the nerves.

"I like to come down occasionally and kind of snuggle up to an engine and hear her breathe, but that's all."

What the Hoboes Cost Yearly.

BY CHARLTON C. ANDREWS.

A GRIM way in which the importance and scope of the tramp problem may be brought home to the general public is in the perusal of the analyzed accident reports of any large railroad. It will be found that the bad name that American roads have achieved in the matter of casualties is very largely due to the tramp evil. More "trespassers" are killed or injured than any other class of railroad users—often more than all the other classes put together.

The Harmful, Unnecessary Tramp, Does Many Things to Hinder the Country's Transportation and Increase the Cost of Living.

WHILE the season for the annual outing of the underworld is still with us it would be well if its prey, the public, could be induced to bestow upon the subject a passing thought or so. Lack of thought has permitted a condition to develop in the United States without a parallel elsewhere, a condition which has grown steadily worse until it has become unbearable.

It is a condition of universal concern, for no community is too remote to escape the visits of, no one too influential to be safe from, none too humble to avoid the imposts levied by, the predatory hosts

of criminals which, under the convenient incognito of "tramps," combine plunder with pleasure on their summer prowl of vicious indolence.

For some incomprehensible reason the popular mind seems unable to disabuse itself of the idea that the tramp is an amiable, harmless creature, whose existence is to be regarded as a joke, or at the worst as a remote impersonal infliction, like the tariff. Possibly this may be ascribed in part to the comic supplement of which the tramp is the favorite hero, and to persistent exploitation of these vagrants in magazine articles.

Possibly the facts herein set forth may serve to show that, so far from being harmless, tramps have become the most insufferable plague that ever preyed upon a supine people. Perhaps the truest explanation of the easy indulgence with which tramps are treated is the popular belief that, since they travel by beating their way on railroads, the matter is one which concerns, and must be remedied by, the railroads alone.

Railroad managements might be pardoned for sharing that belief, for they have been left to cope with the plague of tramps without assistance from anybody, and least of all from those who are paid to enforce the laws.

Encouraging a Nuisance.

The theory that the railroads are in duty bound to carry, free of charge or molestation, every vagabond and criminal who feels the need of a change of scene, is even more firmly held in the country than in the city. The rural justice usually goes through the farce of imposing a nominal fine upon the tramps brought before him, which is then suspended on condition that the culprit take the next train out of the town.

The chief of police of an Ohio city simply refuses to lock up tramps taken to him by railroad police. The Governor of an Eastern State, peculiarly afflicted by tramps, declines to commission railroad policemen as State detectives, thus rendering them liable to arrest for carrying concealed weapons if they are found to have a revolver in their possession, and the municipal police have not been slow to take advantage of every opportunity in their power to humiliate railroad policemen.

Thus sustained by public opinion, indorsed by official approval, and backed up by the strong arm of the law in the principle that the railroad is the legitimate runway of the underworld, the tramp has flourished until there is to-day in the United States a floating army of five hundred thousand criminal vagrants, and the number is rapidly increasing.

The Opposing Force.

Riding on trains, intimidating, often assaulting, and not infrequently murdering trainmen are by no means the only offenses of the tramps. All the millions of dollars' worth of valuable goods retailed in the stores of the land must pass over the railroads before they reach the consumer, and these goods in transit are at the mercy of the tramps along the line, who are not slow to help themselves to what they want—and their wants are not modest.

Three years ago an average of three hundred to four hundred cars a month were robbed on a single road entering New York. The value of the stolen merchandise on this line footed up approximately half a million dollars a year.

So serious has the situation become that every railroad in the land is obliged to maintain a police force of its own, or a corps of "special agents," or something of the kind. Whatever be the euphemism by which this force is designated on the pay-roll, its use is to do police work, guarding the track against train-wreckers, watching for car burglars who steal valuable merchandise, protecting passengers from pickpockets at crowded stations and on trains, and from sneak-thieves who take valuables, clothing, and baggage from sleeping cars.

The railroad systems centering at New York City alone are obliged to maintain an army of two thousand policemen to protect their property and that of their patrons.

Some idea of the difficulties encountered in discharging this responsibility may be gathered from the following extract from the last annual report of the chief of police of one of the trunk lines. As it was not expected by the writer that

any eyes but those of his superior officer would ever see the report, every word in it may be taken at its face value.

Hobo Fatalities.

"The train rider problem is one which calls for a radical change in existing laws. Trunk line railroads have become the popular routes of travel for escaping criminals, yeggmen, who are the most dangerous class in the country to-day, and a young tough element who find they can obtain free transportation from town to town in this manner.

"The fact that the Pennsylvania Railroad alone reported having killed six hundred and fifty-seven and injured seven hundred and ninety-one train riders during the last year shows the desperate character of this class. The fear of death or injury does not deter them from travel, neither does the fear of consequences prevent them from killing any one who interferes with them. The local courts will do nothing with train riders on account of the expense their punishment would involve; they simply pass them along to the next town, where the same treatment is given.

"Conditions at Buffalo and Jersey City are bad, and are growing steadily worse. During the year fully a dozen different officers have been shot at in the discharge of their duty by car burglars in the Buffalo yards alone. At Jersey City officers have been shot at repeatedly by armed mobs of thieves, which enter the yards in daylight and shoot at officers or whoever attempts to interfere with them

"The leniency with which the courts deal with these people when arrested is responsible for this condition. It is growing worse, and the time is coming when our men will have to be greatly increased and heavily armed, or we shall have to abandon the property to the thieves. We are continually cautioning our men not to use firearms; but it is a question how long we can do so and expect them to do their duty and effectively protect the property of the company."

HE MANAGED TO ESCAPE AFTER A LONG CHASE IN WHICH FIFTEEN SHOTS WERE FIRED.

Desperate Remedies.

This is pretty strong language, but it is far from telling the whole story of the plague of tramps. The plain truth is that the situation became so desperate last year that one of the trunk lines

was compelled to add a pack of bloodhounds to its police force to protect the lives of employees and patrons from train wreckers, car burglars, thieves, highwaymen, and other desperate "tramps."

Another line was so hard pressed that it was finally obliged to arm its police force at Buffalo with shotguns. Another line quickly followed suit, and now all railroad police at Buffalo are to be armed with short-barrelled shotguns.

At short range a shotgun is more likely to knock a man out, yet is not so apt to kill as a revolver. Besides it affords more chances of a hit, and a railroad policeman in the lonely wilderness of tracks around Buffalo needs all the chances he can get.

Captain Weber, of the New York Central police, caught a notorious car thief in the act of plundering a car of merchandise in the Buffalo yards last October. He slipped upon the thief and clinched with him, whereupon the thief shot him twice in the chest.

By a miracle of good luck both bullets struck at an angle that sent them plowing around his ribs to come out of his back instead of passing through his heart, as they were intended. Still holding on to his prisoner the captain drew his own revolver and shot the fellow in the eye.

Captor and captive, still locked in each other's arms, went down and lay there till help came. The captain's bullet also failed to inflict a mortal wound, so both he and his prisoner recovered.

A Dangerous Occupation.

This was not the end of the matter, however. So emboldened have the tramps who have made Buffalo their temporary headquarters become, and so determined are they to retain possession of a hunting-ground which affords such rich plunder, that they visit summary vengeance on all who attempt to interfere with them.

As soon as Captain Weber was reported to have left the hospital and returned to duty, an ambush was prepared for him. One night, in a lonely part of the yards, a Lake Shore policeman who resembled him was shot and mortally wounded.

The railroad police have many such experiences, for the tramp, indeed, does not hesitate to kill any one who interferes with him. Officer Wilson was shot and killed while in the discharge of his duty in the yards of the Erie Railroad at Bergen, New Jersey, four years ago. Five negro tramps who attempted to capture a freight-train at Sparta, Illinois, last July, shot and instantly killed a deputy sheriff who came to the relief of the train crew.

Unscrupulous Wreckers.

Lieutenant William Kane, of the Erie police, captured a giant negro in the act of robbing a car at Goshen one day last summer. While taking his prisoner to jail the negro snatched the officer's club and knocked him down.

The negro then sprang upon Kane and began chewing his ear, only pausing to announce that he meant to kill him. As Kane's right hand had been amputated at the wrist he was at something of a disadvantage. The coroner's jury which investigated the matter, found that the lieutenant was justified in shooting the negro dead as he held him flat on his back biting and choking him.

Several trains were wrecked by tramps last year, and a great many more attempts were frustrated only by the vigilance of the railroad police. An Erie policeman saw a man bending over a frog. Running up he found a pig of iron wedged in the frog.

As a passenger-train was due in less than five minutes the officer stopped to remove the iron. This gave the wrecker a good start, and he managed to escape after a long chase in which fifteen shots were fired. In another attempt at wrecking on the same road an unexpected freight happened along ahead of the passenger-train for which the obstruction was intended, preventing the accident.

Even Commit Murder.

Fifteen train robberies, accompanied by four murders, were committed in the United States last year by wandering criminals known to the unsophisticated public as "tramps." No one will ever know how many other robberies and murders were committed by the same class, nor could any good purpose be

served by compiling a catalogue of such crimes. If such as have been mentioned are not sufficient to show the tramp in his true character, any seeker after information can get all he wants by applying to any one who has ever been brought in contact with tramps.

There is a popular impression that the tramp is a downtrodden creature, whom misfortune has followed until it has deprived him of any inordinate appetite for work, but who is harmless and would soon become an ornament to society if he only had a chance. Nothing could be further from the truth.

It may be true that occasionally some honest hard-working man, out of employment and out of money, may undertake to beat his way to another town in the hope of finding a job. But the moment he takes to the box car or the truck, he becomes, perforce, the traveling companion of the dregs of humanity, for the railroad is the ever-ready refuge, the safest retreat, the surest means of escape for criminals of every degree.

Wasted Sympathy.

By the time your honest workman has reached his destination he has lost his taste for toil. In a month, like the rest of the vagrants with whom he now trains by choice, he is not worth the powder it would take to shoot him. He is simply a pest.

The railroad police must be conceded to have some opportunities for gathering first-hand impressions. They made thirty-five thousand arrests on four trunk lines last year for offenses running the whole gamut of the criminal code from stealing rides to burglary, train-wrecking, and murder. They will tell you the tramp is such from choice, and that he is in the profession to stay.

Unless he has recently been robbed by his fellow travelers the tramp usually has his kit, consisting of a pocket-mirror, razor, soap, needle and thread, and other trinkets of that sort, thus showing that he is out for the season. He also has a weapon, perhaps a murderous bludgeon, made out of two feet of wire cable, loaded with lead and wrapped with gummed cloth such as is used by electricians, perhaps brass knuckles or a knife, or more likely a revolver, which may be taken as an indication that he is not out for the good of society.

Criminals by Instinct.

Wherever they may be found, gangs of tramps may safely be set down as criminals. A pertinent illustration of this fact may be found in an incident in the work of Special Agent J. M. Bingham, of the Chesapeake and Ohio Railroad.

Hearing that a gang of thirteen tramps was camped at Olive Hill, Kentucky, Bingham boarded a freight-train to visit them. After the custom of their kind, the tramps kept on the move, so that Bingham had a long chase.

One night, while riding a freight-train, the surest way to find the men he wanted, Bingham saw a camp-fire near the track at Lewis, West Virginia. Summoning some tool-car men to help him, Bingham surrounded and surprised the camp.

In due time the entire gang was landed in Cattlesberg, Kentucky, but there was no evidence against them. As they could only be held four days without some sort of definite charge being made against them, Bingham was obliged to move his prisoners to another jail while he kept up his search for evidence.

Being still unsuccessful when the second period of four days was up, there was another move to a new jail, and another. After the fourth move, Superintendent Bowden sent for the special agent.

After glowering at the officer a moment, the superintendent inquired:

"Mr. Bingham, are you running a hobo excursion?"

"You bet I am. I am running an excursion to the penitentiary, and I think there will be just about one more side trip between here and our destination."

He was right, for before the time limit at the next jail was up evidence had been found that his prisoners had robbed some cars at Ashland Junction. Then one of the gang turned State's evidence, told the whole story, and confessed that he and his companions constituted the notorious "Lake Shore Gang" of car

thieves, thugs, and all-around desperadoes. The excursion ended with a sentence of seven years in the penitentiary for all the gang except the one who turned State's evidence.

The situation being such as has just been indicated, the question naturally arises, what are we going to do about it? The question is of some moment, for the plague of tramps now costs the railroads twenty-five million dollars a year.

ALWAYS HAS HIS KIT, CONSISTING OF POCKET MIRROR, RAZOR AND OTHER TRINKETS.

Let it not be forgotten that even a railroad company cannot pay out what it does not take in. That twenty-five million dollars does not come from an inexhaustible reserve fund in the coffers of the Morgans, Harrimans, and Rockefellers, but is added to the freight bills of all the merchants in the land, who simply tack it onto the prices of their wares, as they hand them over the counters to the public.

In the last analysis, the cost of the crimes and depredations of vagrant banditti is borne by the people of the United States just as all other charges are. It may also be well to remember that it is a per capita tax, for freight tariffs are based on weight, and plain John Smith, of Jonesville, eats just as many pounds of steak and potatoes as a Pittsburgh millionaire.

If one may believe what one reads, Henry VIII hit upon the most effective remedy for vagrant criminals recorded in history. He simply had a thousand or so of the worst of them hanged out of hand. Lesser offenders of this sort were flogged and sent home.

If they neglected to obtain a certificate signed by two justices to prove that they had had their whipping, they were liable to be given another by the first officer they met on the road. No doubt such methods would be quite as effective in the twentieth century, but doubtless they would be considered too radical for this soft-hearted age.

Perhaps the next best course would be to turn the whole tramp problem over unreservedly to the railroads. Since the railroads are expected to furnish their own police force to protect the property and lives of the public while in transit, why not compel them also to maintain their own courts, penitentiaries, gallows, and hangmen?

Surely, such a course would be better than the present system of requiring them to arrest vagrants and criminals

and then thwarting every effort to mete out justice to them. Take, for instance, the case of a New York Central track-walker who caught a man in the act of fastening fish-plates and other obstacles on the track just before a passenger-train was due.

The fellow was pursued, immediately caught, and positively identified; but, by methods only too familiar, he secured delay after delay until at last the track-walker, the principal witness against him, died, and so he escaped punishment.

Another example of many such cases was the stealing of a quantity of silk from a car on the Erie Railroad. The case was followed up so energetically by the railroad police that the thieves were captured and the silks found in the possession of notorious receivers of stolen goods. The tramps who committed the robbery were sent to prison, but the receivers of the stolen goods have secured one postponement after another, and there is no present indication that they can ever be brought to trial, to say nothing of punishment.

Possibly the best plan of all for dealing with this evil would be to exercise a little common sense. If public officials would but perform their sworn duty by zealously and faithfully executing the laws already on the statute-books; if they would sentence train riders to a month's labor on the rock pile instead of sending them on to the next town or giving them a rest-cure in a comfortable jail, and see that train wreckers, car burglars, train robbers, and the like were promptly tried and relentlessly punished, the plague of tramps would disappear like mist before an August sun.

FRESH AIR FOR THE HUDSON TUBES.

How the Engineers Solved a Difficult Problem in the New Tunnels Connecting New York and New Jersey.

THE two submarine tubes under the Hudson River connecting the new terminal station of the Hudson and Manhattan Railroad Company at Cortlandt and Church Streets, New York City, with the Pennsylvania Railroad station in Jersey City, New Jersey, are now in full operation. The question of ventilation was simply solved.

Experience in the operation of the uptown tunnels of the Hudson and Manhattan system, says the *Electric Railway Journal*, proved to the engineers that with trains running in separate tubes, which, for the most part, pass through soil saturated at all times with water, there was little difficulty in maintaining good natural ventilation in both the tunnels and the stations, and, furthermore, that the temperature of the air in the tunnels was uniformly cool.

Fans have been provided in the terminal station, however, to accelerate the movement of air if it is found necessary, and suitable chambers have been provided in the land tunnels on the Jersey side, so that ventilating apparatus can be installed in that section if found necessary.

The ventilation of the concourse and track level of the terminal station is entirely independent of the general ventilating scheme installed in the building for the offices on the upper floors. An intake tunnel has been driven under the inbound train tunnel for some distance toward the river.

Air is drawn out of the inbound river tunnel through these openings, and the intake tunnel by two fans located in the basement below the track level. These fans have a capacity each of 57,000 cubic feet of air a minute. They are one hundred and sixty inches in diameter, and are driven by direct-connected motors. They exhaust the foul air drawn out of the tunnels into an uptake flue, which extends up to the level of the roof of the building. Adjoining this exhaust flue is a fresh-air flue, which also passes down to the basement level, and from which air is drawn for cooling the transformers and rotaries in the substation.

No air is drawn from this flue directly into the terminal station. At the north end of two of the platforms of the station there have been installed motor-driven fans, each with a capacity of fifteen thousand feet of air per minute. These fans draw air out of the station and discharge it through suitable passages into the outbound tunnel, some distance beyond the station. With the aid of these four fans it is believed that the piston action of the trains in the two tubes will be ample to maintain satisfactory circulation.

The Railroad Man's Brain Teasers.

Here are Three Hard Nuts to Crack, Boys, and, Perhaps, You Can Send Us Some That Are Equally as Good.

IN answer to our request for puzzles, two of our friends have sent us the following:

Mr. Charles J. Bills, of DuBois, Pennsylvania, asks:

Conductor Jim says to Conductor Bill: "Hello, Bill! A heavy string of one hundred cars you've got."

"No," says Bill, "I have not got a hundred, but if the number were doubled, plus one-half of the number, plus one-fourth of the number, and the caboose thrown in, I would have a hundred; therefore, how many cars have I in the string?"

—

Here is another one of Mr. Bills's perplexers.

Conductor Z comes in with a string of cars which are to be distributed on switches at the division point. If he puts a car on each track there will be one car remaining, but if he puts two on each track there will be an extra track. How many cars and how many tracks are there?

———

Also, we are indebted to Mr. J. R. Conway, of Alberta, Canada, for the following:

An engine and caboose, west bound, meets an engine and caboose, east bound. The only means they have of passing is by a turntable, which holds but two, *i.e.*, one engine and caboose, or two engines or two cabooses. They pass and proceed with their engines headed right and cabooses behind. How do they do it?

If it takes passenger train No. 1 seven days to go from New York to San Francisco, and No. 2 the same from San Francisco to New York, No. 1, as it leaves New York, meets a No. 2 there, and when it reaches San Francisco meets a No. 2 just about to leave. How many No. 2's has it met?

THE SPIDER OF PALERMO.

BY EDWARD BEDINGER MITCHELL,

Author of "An American Knight Errant," "The Yellow Rose," Etc.

Paget Enters a Very Convenient Apartment and Drives to a Convenient Storage Warehouse.

SYNOPSIS OF PREVIOUS CHAPTERS.

STEPHEN PAGET, a retired newspaper man, and his friend Marshfield, are attracted by the sight of a beautiful girl in a poor building opposite Paget's apartment. A few minutes later a middle-aged woman in the street below is heard to scream hysterically, and on Paget rushing down to find out the reason, she says she has seen the evil one, indicating as the place the room in which the two men have just seen the girl. Paget escorts the woman to her store in the basement of the cheap house, where he learns that her name is Rosa, and that she and the girl, Maria Bigontina, live in the room above. Some days later, Paget finds the girl in a park, homeless. Rosa has disappeared and Maria's brother is also lost. Paget arranges for her to stay at the Walton until her people can be found. He goes to interview the landlord, who has turned her out, and in her room has an adventure with several Italian cutthroats. Dining with Maria, he is warned by a Hungarian orchestra leader not to take the first cab or walk when going home.

The cab they do take breaks down, and in the confusion they are actually led into taking the first cab. The driver tries to abduct them, but Paget thrashes him, and after seeing Maria to the Walton he changes coats with the driver and goes to the place the latter was instructed to drive them to. He sees his enemy, but fails to learn anything. Next morning, with Maria, he dodges the spies and carries the girl to the seclusion of his cousin's home.

As Paget is going home he is met by Marshfield, who insists that he go to his house to dinner. A scheme is on foot through which the elder Marshfield may purchase valuable mining property in Abyssinia, and it is practically settled that Paget and young Marshfield shall go to look things over. Paget sees one of the guests at the dinner in conversation with one of the Italians of his previous adventure, and, later, he and Marshfield overhear a conference of the cutthroats, in which it is planned to get possession of Maria.

CHAPTER XII.

The Basement of the Auvergne.

MARSHFIELD looked his unspoken question as I seated myself in front of him. "It's a gang of fiends," I murmured. "A gang of—"

"Never mind all that," interrupted David. "Do you know what it means?"

"No, I don't, except," I leaned forward, dropping my voice to a whisper that was barely audible to the alert man across the table, "except that Ghedina is after our friend and that Ghedina's people meet to-night down-stairs in the annex."

Marshfield did not start, he did not even look at me. Only his eyes narrowed as he gazed through the smoke from his cigar at the leaderless orchestra huddled in confusion on their platform.

"Where's the annex?" he asked at last.

"I can get to it, all right," I answered.

Very slowly David's head turned and his eye left the orchestra to rest for a moment on my face. Simultaneously we rose from the table, reaching for our coats. Neither had spoken, for there was no need.

Began in the August Railroad Man's Magazine. Single copies, 10 cents.

Leaving the section of the hotel given over to the restaurant and café, we made our way down a corridor of the rambling old structure to the office. A stout, florid individual perched on a high stool and lazily writing in an enormous ledger, raised his head as I stopped in front of the desk.

"Good evening," he grumbled rather sulkily. "Anything I can do for you?"

"My friend and I were thinking of taking rooms here—by the year," said I. "They're cheaper in the annex, aren't they?"

"They're cheaper," retorted his majesty from his wooden throne, "but that won't do you any good."

"Why not?"

"Because they are all taken." He dipped his pen in the inkwell and went on writing as though the conversation was at an end for all time.

"Well, some of them will be vacant by and by, won't they?" I had been room-hunting in earnest in New York in my time and I was not to be so easily put down.

"Perhaps; how do I know?" Compelled to pay attention, the stout individual laid down his pen with an aggrieved air and waited for my next demand.

"Could we see some of them?"

"Not now. It's eleven o'clock. How would you like to have a fellow walk into your room in the middle of the night?"

"That's so," I smiled cheerfully back in the face of the man's insolence. "By the way, what do you do with the rooms on the ground floor?"

"There's only two of them that are any good. Some kind of a club has them in the daytime. They come here to lunch and then sit around and gas down there."

"And what do you do with them in the evening?"

"Nothing." The clerk reached for his pen again. "They're no good—dark holes we're lucky enough to rent at lunch time. Don't get anything for them at that. You don't want to hire them."

"We might like to see them," suggested David mildly.

"It wouldn't do you any good. Besides, I'm too busy to show them to-night. I've got to finish this work and get to sleep. No use your wasting my time as well as your own."

"Cheerful citizen," remarked Marshfield as we turned away. "And what now, Steve?"

"This." I led the way down the stairs to the bar and the lower, obscure regions of the hotel. Before us stretched a dim corridor lined with painted hands that pointed to barber-shops and tailor-shops and heaven knows what other parasites of a prosperous hotel. At the foot of the stairs, I halted for a second to look back at Marshfield.

"We'll show ourselves," I said. "If we get into trouble, we're drunk and have lost our way, do you understand?"

"I understand." With a grim smile, Marshfield jammed his hat on one side of his head and twisted his white tie to one side. "It's the best I can do on what I've had. Go ahead."

Treading silently over the tiled flooring, we had gone but a pace or two down the corridor when a squat figure popped out upon us from a side door.

"Hey, hey!" it cried, waving its arms in front of us. "Where you going? Nothing this way."

"That's what we want—nothing." Marshfield reeled uncertainly forward to be stopped roughly by the outspread arms of the bootblack of the Hôtel Auvergne.

"You in wrong—wrong—wrong."

The American slang on foreign lips was ludicrous enough, but it was not of that I thought. With his last words the boy's voice had risen almost to a shriek, but it did not drown a strange sound at the end of the corridor—the sound of a heavy door sliding shut. Marshfield heard it, too, and fell away from the human barrier that blocked us.

"Where's the bar?" he muttered thickly. "We want a drink."

"Down that way."

The bootblack positively pushed him along the corridor back whence we had come. In himself the boy was but a feeble guard—either one of us could have brushed him aside with one hand—but we could not batter down an iron door. Retreat was all that was left us.

"Well?" asked Marshfield. We stood together in the quiet street looking

at each other in discomfiture. "How about it?"

"We'll spend the night here," I replied with sudden determination. "There's one more chance. We'll get room forty if we can."

The florid clerk grunted in disgust when he heard my modest request. "Huh, yes, you can have forty if you want it. It ain't much of a room. Why didn't you say that was what you were after before?"

He slammed down the key on the desk and turned back to his writing.

"If I was the proprietor of this place," remarked Marshfield in the elevator, "I'd fire that fellow. He's not what you'd call a business-getter."

"I'd fire the bootblack and the starter and—" and then I remembered that the elevator-boy was not deaf, and subsided.

Number forty was not much of a room. The clerk might be rude, but in that at least he spoke the truth. The light I turned on as we shut the door disclosed a narrow, cell-like apartment with two small beds, a washstand, and a window opening high up upon a court. There was another window in the side wall, for we were at the extreme end of the main building of the Hôtel Auvergne.

David glanced about him with a quick eye before he turned to me. "Well?" he said again.

"We're at the end of the corridor, next to the annex," I explained. "There's a fire-escape running down from that window."

"Oh," said David, and he sat down on the bed and proceeded to kick off his evening pumps. "You don't want any noise in this game, do you?" he asked in answer to my look of surprise.

"I wish I knew what I do want," I replied. "I am a long way beyond my depth, I can tell you."

"The only way to learn how to swim," retorted Marshfield, as he stood up in his stockings, "when are we going to touch bottom?"

"Meaning the down-stairs rooms in the annex?"

As Marshfield nodded, I reached above me and turned off the light; then stumbling through the darkness to the window, I threw it open and leaned out.

"Do you see that fire-escape?" I asked, pointing to the slender thread of iron which ran down into the blackness.

Ahead of us we could distinguish the roofs of several private houses fronting on a broad avenue; on our left was the rear wall of the annex, a floor or two lower than the main building of the hotel; to the right, enclosing the court, was an old stable and two or three dilapidated structures. They were the vanguard of the slums, rubbing elbows here with the wealth of New York as it retreated northward.

"Where does it go?" David peered over my shoulder, striving to follow the dim ladder.

"To the roof of a passageway, running from that stable to the basement of the annex. The main entrance to the place is by a high stoop from the avenue. That brings it on a level with the office floor of the hotel. There's a way into the annex from there, of course, but I am pretty sure the door leading down-stairs is locked at night; anyway, you can bet it would be guarded just as the basement corridor was.

"Of course. What about the passage?" David was following me attentively as I whispered in his ear, and his breath came in quick gasps of excitement.

"It's on the same level as those rooms. There must be a door between them. I think that stable is empty, since the Auvergne took over the annex. There's the bare chance we can get into the passage by a window or somehow, and then—"

"I see," muttered Marshfield. "Come on."

Bareheaded, without our overcoats, and noiseless in our stocking feet, we crept down the cold iron rungs. A few of the rooms we passed were lighted, but the occupants did not see the silent shadows that dropped rapidly through the shafts of light from their windows into the darkness beneath. The fire-escape ended where I had hoped it would, and we stood on the flat roof of the covered passage.

Where it joined the wall of the old, disused stable was an expanse of glass, the thick dust and cobwebs which stretched across it visible even in the faint light of far-off lamps. Before that

blessed passage had been built, it must have been a window of the stable; now, as we shoved and pushed upon it, it swung open, pouring a shower of dirt upon our heads. Lowering ourselves by our hands, we dropped silently into the blackness and the secret of the stable.

And black it was. The few rays which straggled through the forced window served only to emphasize the impenetrable blank in which we found ourselves. Every window must have been shuttered and we could only guess from the unbroken silence that the place was empty. Not daring to strike a match, we groped for the entrance to the passage that we knew must exist.

My hand was on what might have been a door, when I jerked it back to clutch at Marshfield. From the outside of the building came the sound of nailed boots striking on stone. More than one pair was there and a trap like this was no place in which to offer battle. Together we leaped far to one side, falling flat on our faces in the heart of the surrounding night. Unless the visitors brought a lantern with them it was possible that the two forms low on the floor would escape attention.

A door was flung open and for a second three men were silhouetted against the dim background of an obscure alley. They closed the door behind them, tramped with the knowledge born of familiarity through the darkness to where I had been standing, and then we heard their heavy tread tiptoeing cautiously down the passageway. The midnight reception was about to begin.

With the sound of their footsteps still in our ears, we rose to our feet and stole after them, guided by a spot of light at the end of the passage. It came from the keyhole of what had been the back door when the annex of the Hôtel Auvergne was merely an unpretentious private house. At the sides of the door rose two stone columns, and between one of them and the wall of the passage our hands found for us a narrow hiding-space into which we squeezed for a moment's thought.

The house was an old one. In its long life it had passed through many phases, and one of its tenants had seen fit, for some purpose of his own, to join the stable to it by this passage. Why he had done it we neither knew nor cared, but it occurred to me as we huddled close to the column that he had labored well for the schemers within.

Apparently they had the control of a part at least of the force of employees of the Auvergne; thus, the entrance through the hotel was open to them and closed to all others, including busybodies like ourselves. The way by which the three men had come was practically a secret passage, as secret as any underground tunnel to a medieval fortress. And, most important of all, there was no need for obvious and mysterious safeguards with which to attract the suspicion of the curious.

My respect for the intelligence of the rascals had mounted as high as my wonder at their motive, when the door was thrust partly open and a commanding voice cried in Italian:

"That is better. There is no need to suffocate. Now, Giuseppe, what is it?"

The gruff, uneducated tongue of a Sicilian of the lower orders answered him in a dialect I could with difficulty understand. For a while, indeed, I heard nothing but the harsh voice as it plowed forward through its story, mutilating the musical Italian shockingly; then, as my ear grew accustomed to the *patois* and to the words clipped short in ignorant sloth, I began to understand.

"We found them, sir," the man was saying, "on a rafter close to the wall in a little crevice, as one might say. When we first looked we missed them, but you ordered us to stay until we found them and we searched again."

"You have taken long enough about it," came the sneering reply, and I gripped Marshfield's arm in excitement. It was the voice of the man who had put me on the track of Ghedina, the man whom I had seen lighting a cigarette as he drove away from the Marshfields. "Hand them over," he ordered crisply.

"What 'they' were we had no means of knowing, but presumably they were handed over. The conversation ended and silence fell upon the room. It was broken by a sharp question from the man we had left smiling and smoking in the restaurant:

"Where's the key?"

"The key?" several voices echoed the word in apparent astonishment.

"Yes, the key." Ghedina's voice rose high in anger. "What's the good of this stuff without it? Don't you understand? Where's the rest of it?"

"But, *signore*, that is all we found. There is no more."

A chair was pushed violently back and Ghedina's voice rang out, no longer shrill and excited, but cold with menace and command:

"Don't play with me. Where is the rest? No man lies to me twice."

"*Signore*, I swear—I swear it is all. I do not lie, *signore*. It is all except—"

The gruff tones of the man who had found "them" had turned into stammering quaver of fright. A palsy of terror seemed to fall upon all who looked upon the fresh, suave face of my late dinner companion.

"Except what?"

"Except," the fellow seemed to hesitate as though between the devil and the deep sea, "except a little book with figures in it that Signor Cagno took."

"What!" It was more a bellow of rage than an articulated word which burst from Ghedina's lips. "Signor Cagno took it! What did he do with it?"

"*Signore!*" So eloquent was the one word that I could almost see the gesture of humble deference with which the terrified man disclaimed all knowledge of Signor Cagno's doings.

"Is this true, Cagno?" Apparently Ghedina possessed a wonderful ability to lose and recover his temper at will, for now his words were fraught with the same cold menace with which he had a minute before addressed the workingman.

"I—I—there was a book, but it was nothing," Cagno stammered, and, recognizing his voice, I knew that Cagno was the name of my slender adversary of the attic room. Over him, too, lay Ghedina's baleful influence, for his voice shook as he answered:

"Nothing! It will be something when I tell the chief. Give it to me."

"But I—it—I have lost it. It was stolen."

"Lost! Stolen! You bungling fool!" Once more rose the roar of wrath with almost incredible intensity. "Don't glare at me. You had better be saying your prayers. Stolen! Who stole it?"

"That busybody Paget. He stole it from my pocket when he threw me downstairs. Nobody told me what it was. I kept it, but I did not know. The chief will understand—he must understand. Paget—"

"Paget!" Ghedina cut short the whining man with an exclamation of wonder. "Paget? I dined with a Paget to-night. What has he to do with the Bigontinas?"

Stuttering and confused, Cagno poured forth a torrent of explanation and apology. He had been ordered to search the rooms. He had found the black book, but he had been told to find papers. The book meant nothing to him.

Paget—and the curse of the evil eye upon him—had forced his way into the rooms. He had thrown him down stairs, he had stolen his book. He had run away with Maria Bigontina. Cagno had planned to get them both, but the cabman was a fool and a coward.

He had done all that man could do. The chief himself would have fared no better. And nobody had told him about the book and he didn't know now what it was.

He stopped and I gazed down the dark passage-way, a thousand wild surmises rioting in my brain. One thing I knew. The little black book over the loss of which Cagno trembled and Ghedina stormed, lay where I had thrown it in disgust, on the top of my desk. While it remained in my possession no minute of the day or night would be safe for me; and yet it was a tool, an invaluable tool, if I could only learn how to use it.

"You did not know what it was and you have lost it. Also, you have lost the girl." Ghedina's voice again broke the protracted silence. "It is a bad business for you, Signor Cagno. The chief does not like bunglers. He is angry already; when he hears this he will be furious. What do you propose?"

"We can get Paget," muttered the cowed Cagno. "That will be easy. We can get him to-morrow—he is a careless fool—and then we can find a way to search his rooms."

"A wise thought for one in your position." Ghedina's jeer cut like a keen

knife. "That will give us the key to these"—he slapped his hand on the table and I heard the rustle of papers—"and it will lose the key to the Signorina Bigontina. The chief wants both—and just between ourselves, Signor Cagno, he will have both, or you will pay for it."

"But what then?" asked Cagno in obvious despair.

"I will talk with the chief. He will find a way. Until then watch this Paget and young David Marshfield, too. They are friends. And see that nobody steals the boy Pietro. He is no good to us now, but we cannot let him go to tell his story. The chief must decide that also.

"And, hark you, Giuseppe, or whatever your name is, you have been to-night where you have no business to be, and you have heard things not for the ears of such as you. If there is a leak we shall know whom to blame. We only blame once, my friend. Leave us."

Marshfield and I held our breath as we forced ourselves back into our narrow hiding-place by the side of the stone column. The door swung wider open and the three men we had seen come through the stable stamped into the passageway as quietly as their clumsy frames and heavy boots permitted.

They did not glance behind them—I fancy the fear of Ghedina lay heavy upon them also, and that they were glad to escape the overladen atmosphere. Stealing down the passageway, the darkness swallowed them and left us undetected.

"If this business is to be left to the chief," said a man whom we had not heard speak before, "there is nothing more for us to do. The small affairs can wait. I am tired and thirsty. Let us go to the café."

A general murmur of assent was lost in the scraping of chairs on the uncarpeted floor as the party within rose to their feet.

"Just a minute; I nearly forgot." Ghedina's words brought instant silence. "This fellow who plays the violin and sings here—get him at once—alive, if you can, for I want to talk to him—but get him. It is important."

"But," interposed some one mildly, "what—"

"Get him," interrupted Ghedina. "Surely, you need no help in that. He has balked us on the other side. For heaven's sake, do you ever do anything here in New York?"

It was the last sneer that we heard from him that night. The heavy door which had shut at the bookblack's shrill warning, creaked upon its hinges and the members of the black conclave trooped out into the corridor of the Hôtel Auvergne. Marshfield and I were left alone in the silence and the darkness.

CHAPTER XIII.

I Play the Guide.

"MY boy, what do you want me to do about it?" Old Marshfield leaned back in his chair and surveyed me calmly. We were in his private office, high above the turmoil of Wall Street, and it was the morning after David and I had been uninvited guests at the meeting of Ghedina and his friends. After their departure, we had waited for a while in the dark passage before following them into the hotel corridor.

No one observed us, and we made our stay unostentatiously to number forty in quest of our pumps. When we returned there was no sign of any of the participants in the conference. Apparently they had sought elsewhere refreshment after their labors. Now I had come to lay what I knew before the banker and to seek his advise.

I met with scant comfort. Puffing at his eternal cigar, Marshfield, Senior, listened to my wild tale as he listened to many men's stories, no evidence of belief or disbelief upon his face, self-contained, inscrutable. It was as though I were appealing to the Sphinx. By the time I had finished, I had almost come to doubt the truth of my own words.

"What do you want me to do?" he asked again as I stared blankly at him across the broad, flat top of the desk.

"Do? But I want to know," I stammered.

"I can't help you to know," retorted Marshfield. "People have to do that for themselves in this world. I'm a hard-headed business man, Stephen, and I don't go in much for romance and sentiment—not in business hours, anyway.

"To tell you the truth, I don't take much stock in your story. There's a lot of funny business in New York, I know, and you may have run into some of it, but I don't see what I can do to help you.

"As for this Ghedina chap, what he does with his private affairs I don't know and I don't care. He can help me in this Abyssinian deal, I am told. If he doesn't do that he can go home, and the sooner the better. And by the way, Stephen, there's been talk enough about this Abyssinia affair—just leave it alone for a while, will you?"

"Leave it alone!" The cold-blooded, invulnerable absorption of the man in his own gains broke the spell and I leaped to my feet in indignation. "Leave it alone! I tell you there's a gang of ruffians plotting to steal a helpless girl, plotting murder, plotting Heaven knows what, and that you had one of them to dinner at your own house, and all you say is not to talk about your business affairs!"

"And that's what I mean" Marshfield's heavy brows met across his forehead and his bulldog jaw set. "I'm not going to quarrel with you, Paget. You're a friend of David's and I like you besides. But by Heaven you don't dictate to me in my own office!

"I ask people to dinner to please myself and I'm not going to waste my day explaining why. If you really want help, I'm home in the evenings usually—not listening to fiddlers and fighting cabmen. I'm sorry to cut you short, but I have an appointment. Come up tonight if you want to."

As he ended he glanced at the small clock on his desk. The hands pointed precisely to eleven o'clock. From the doorway came the respectful voice of his secretary.

"Mr. Rocca is outside, sir."

"Show him in," Marshfield ordered without another look at my angry and amazed countenance.

The bulky figure of the Italian blocked the door as I turned to go. A sudden gleam flashed in the deep-set eyes as they fell upon me, but he extended his hand cordially

"Good morning, Mr Paget We meet again, I see. You have not forgotten your engagement to luncheon with me, I trust. I am looking forward to an Abyssinian talk."

It was childish enough, but I was smarting under Marshfield's rough treatment and I grasped at any opening for revenge, however puerile.

"There is no danger of my forgetting, Mr. Rocco. I am much interested in Abyssinia and now more than ever."

I have never been quite positive, but I have always believed that the sound which came from behind my back was the sound of a drawer in a mahogany desk slammed violently shut by a man in a very bad temper. It was the little things in life which most irritated Mr. Marshfield. With a malicious mental chuckle, I stepped to one side to allow Rocca to pass, but he did not move forward at once toward the waiting magnate.

"If you are coming up-town, Mr. Paget," he remarked, "let me take you up. I have a hansom waiting for me and I shall detain Mr. Marshfield only a minute. You may be hardened to it, but I find your New York cars really abominable."

Considerably surprised, I murmured my thanks. Certainly this distinguished foreigner was more than affable. If he were half as big as man as David appeared to believe and his relations with Marshfield indicated, if I did go to Italy, and if he were as cordial at home as he was abroad, I would find myself in clover. Those were a good many ifs, I thought as I sat down in the outer office and picked up a newspaper, but it was well worth my while to wait.

My eye read the words, but my mind refused to listen to the news of the day. Instead, I fell to speculating on the real character of the strange man who sat at the big desk behind the closed door and who was the father of a son so totally unlike me. I liked old Marshfield—at least I had liked him up to a few minutes ago.

In business, I knew, he was commonly supposed to pound his way to the desired goal as much by sheer, overpowering will as by any extraordinary commercial genius, but his business did not concern me. At home I had always found him cordial and considerate in his peculiar

gruff way. At bottom he was an affectionate father and a kind friend.

Even now, still boiling at his summary dismissal of my tale, I did not doubt that he spoke the truth. If I chose to go to his house that evening, I would receive a very different greeting.

But I would not go. I would find my way to the heart of the labyrinth without his aid. There were enough threads in my hand to guide me—the black book which was the key to something, though Heaven knew what, Ghedina, Cagno, the musician, the cabman, and, above all, Maria Bigontina. I alone knew where she was. She must know something, and for the sake of her own safety she would have to tell me what she knew.

As I reached this comforting conclusion, Rocca emerged from the magnate's lair. Though short, the interview must have been satisfactory, for he beamed more cordially than ever upon me as he apologized for detaining me.

"At last we are off," he said, as we stepped across the pavement to the waiting hansom, "and on a sunny day like this the open air is far preferable to that underground atrocity you call the Subway, is it not so?"

Far preferable it was, but with a caution born of recent experiences. I glanced upward at the driver. He was a round-faced Irishman on whom I had never laid eyes, and I took my seat with a secret blush at my suspicions. Was I to go through life in terror of every member of the innumerable host of cab drivers?

We had gone but a few blocks when Rocca poked with his stick at the trap above him. "I know Fifth Avenue," he called to the inquiring countenance visible through the aperture. "Take us some other way."

"Very good, sir." The trap closed and we swung off to the west. No professional guide ever worked harder than I for the next fifteen minutes to gratify the visitor's insatiable curiosity. Rocca asked questions about everything, but they were intelligent questions.

He had seen most of Europe, he declared, but of New York he was ignorant. Yet it was interesting—most interesting, and to him especially. Once he had been commissioner of emigration and he knew of the hundreds of thousands of his countrymen who had found here a new home. Ah, yes, every poor Italian dreamed of New York as the gateway to the land of hope.

We were still hard at it, asking and answering, as the cab rolled up Sixth Avenue. Suddenly a new thought flashed across the keen brain of the man and he turned apologetically to me.

"I beg your pardon, Mr. Paget. I had forgotten that you may not wish to go this way. Tell me where you are bound and I will drop you there."

"I was going to my rooms," I answered, "but it is no matter. They are near by and I can walk."

"Ah, but I insist. It was stupid of me not to have thought of it before. Really I insist."

It was impossible to refuse, and in obedience to my order the driver turned east again at the next corner. As we left the rear of the elevated trains and the teeming life of the avenue behind us I realized for the first time that this comparatively quiet by-way was Eleventh Street. The next remark of Rocca's fell on deaf ears, for I was looking eagerly along the stretch of stone pavement in the unreasoning hope that chance would allow me a glimpse of Maria Bigontina.

With a little start, I leaned far forward in the seat, my head thrust out beyond the apron of the hansom. In front of the high stoop that led up to the white door and the silver name-plate, two figures were standing as though to enjoy for a minute the sunshine of early spring before they entered the house. One was Mrs. Noyes, and the slender girl by her side was Maria Bigontina.

The black dress and rather worn hat had been replaced, it is true, by fresher attire, but there was no mistaking the grace of the figure. A smile flickered over my face at the sight. Cousin Lucy had taken her new charge shopping.

Rocca did not share my interest in Eleventh Street. He was leaning back comfortably in the cab and Mrs. Noyes apparently saw only my familiar face protruding from the hansom as we came abreast of her.

"Oh, Stephen, stop!" she cried, raising her arm, and the driver pulled up

abruptly without further orders. "Where have you been all this time? Here we've been getting all sorts of new things and nobody to show our finery to except my husband, and he wouldn't care if we dressed ourselves in the drawing-room rugs. Get out of that cab and pay some attention to two lone women."

I threw open the doors of the hansom and jumped out.

"What do you want me to say, Cousin Lucy? Something about painting the lily and so forth. I am sure Miss Bigontina—"

I stopped as though the rest of the sentence had been driven back into my mouth by a clenched fist. Maria had turned to welcome me with a suspicion of a blush and a smile of genuine happiness on her lips and in her eyes. In a second the smile was dead and the face ghastly in its sudden whiteness. One wide glance she threw along the length of the quiet street, then turned and ran up the steps to the door old Jane held hospitably open.

"Heavens, Stephen!" Mrs. Noyes gasped in consternation as the fleeing girl vanished within the shelter of her house. "What can have happened?"

She stood in the center of the sidewalk, twisting about in the frantic attempt to see in all directions at once, her own cheerful visage clouded with anxiety and fear.

"What can have happened?" she repeated. "She was quite happy a minute ago, before she saw you."

"I'm just the same," I burst out. "I don't know what has happened—I don't know anything about the confounded business."

"I must go to her," said Mrs. Noyes with decision. "She needs comfort. Oh—" For the first time she noticed Rocca within the cab. "We have kept your friend waiting. Come back when you can, Stephen. I want to talk to you."

CHAPTER XIV.

A Wooing That Began Badly.

I CAME back very soon, parting from Signor Rocca at the door of my apartment house with scant thanks for his courtesy. The Italian, it is true, hinted rather broadly that an invitation to refresh himself in my rooms would be acceptable, but I was in no humor for the entertainment of distinguished visitors.

Maria had run from me as though I had the plague; my cousin had said that she was quite happy before she saw me. For Rocca and his amiable conversation I cared nothing; for the welfare of Maria Bigontina I cared much, and I fancy that my feelings were quite apparent. At any rate, Rocca proved himself quicker to take a hint than I chose to be. With a polite reminder that he would expect me to luncheon at half after one, he drove away, and I was free to return to Eleventh Street.

For Maria's welfare I have said that I cared much. It was of her welfare that I told myself I was thinking as I strode rapidly across Washington Square. It was true—I was thinking of her welfare. But I was thinking of something else as well, of the way she had fled from me—fled as though I were something to be loathed. No man is so humble that he relishes loathing by any one, but when it is the girl that—

At the foot of Fifth Avenue I stopped abruptly. The white arch rose against the clear sky, children were romping about the square, the benches were lined with toil-worn mothers. The whole city was reveling in the first days of spring, while I gazed blankly at nothing, numbed by the suddenness of the revelation. The last words of my unfinished, unspoken sentence danced before my eyes and shut out the rest of the world.

The girl that I loved! But I didn't love her. It was absurd. How could a man love a girl he had talked to for half an hour in his rooms and dined with once? Love at first sight? That sort of thing came to an end with Shakespeare. The futile sneer wilted in the light that burst upon me. Absurd it might be; it was true, nevertheless. I did love her.

With a long-drawn breath I threw back my shoulders to face the new world. There was the arch, there were the children watched by their mothers. Spring had come for them, but for me there was as yet only hope. First, I must win

Maria for myself; second, I must hold her against the world. Gaping on a corner would do neither, and I strode onward.

As I entered the door of my cousin's house the vision sank into nothingness. In the dim hall Mrs. Noyes met me, a very different woman from the one who had stood in the sunshine to laugh with me a quarter of an hour before. She had no cheerful greeting for me now, but the look of relief on her face showed more eloquently than words how eagerly she had been awaiting my coming.

"Something terrible has happened, Stephen," she began at once. "Maria is another girl. She will tell me nothing. What can it all mean? I am frightened, Stephen."

"Where is she?" I demanded.

"Up-stairs in the library. But do you think you had better see her? You know it was from you that she ran so wildly and—"

"I know it was," I interrupted. "That's why I am going to see her. We've got to find out what this means. I am—I mean you and I—we are her only friends, Cousin Lucy, and we must stand by her."

"Of course we must," retorted Mrs. Noyes with unusual heat; "but how? It's no use your making melodramatic speeches at me. She runs away from you, and she won't talk to me. What are we going to do, Stephen?"

"I intend to find out." At the bottom of the stairs I turned for one low warning. "If I don't find out, Cousin Lucy, don't let Maria out of the house, and don't let any one in." Then I went on into the library.

She was there, huddled in a big armchair, staring out of a back window with white, strained face. At the sight, my own face went white and my breath came hard. Forgetful of everything save the one truth that I loved her, and that she was helpless and suffering before my eyes, I took a step forward.

"Maria!" I cried.

She sprang from the chair and faced me, her dark eyes blazing with inexplicable wrath.

"You!" she cried. "You!"

Contempt, scorn, rage—all were in the two words. I stopped, appalled at the transformation. Mrs. Noyes had not exaggerated. This was not the Maria Bigontina I knew. This was not the shrinking, timid, grateful girl I had left in my cousin's care the day before. At the detestable miracle I stood dumfounded, while her eyes flashed their full scorn upon me.

"You!" she cried again. "You dare to come!"

Had the long strain been too great? Had collapse come with the relaxation of security? The hideous thought grew irresistibly in my mind as the fixed eyes burned through me and the face that nature had made so delicate grew harder and harder.

So, for a moment we stood gazing at each other; then I took another step forward.

"Miss Bigontina, what is this? Won't you tell us?"

Though I spoke gently, as one might to a frightened child, the mere sound of my voice was like a whip to her. The slight frame quivered, and she sprang away from me behind the great chair, as though she would thrust it as a barrier between us. There she stood, her eyes still fastened on me in undisguised loathing and terror.

To me the situation was unbearable in its hideousness.

"What is it? What have I done? I am the same man that I was yesterday. I am the one friend you have in the city, and you treat me as though I were the lowest of the low."

Unable to contain myself longer, the words poured forth in a torrent of bitterness. The vision I had seen by the side of the arch of Washington Square rose to mock me. This was a pretty way for a man to begin his wooing, a fine ending to my brief dream.

"You, my friend!" I should never have recognized her voice in those low syllables that echoed the scorn in her eyes. "My friend! Is there no one to trust in the world? Mrs. Noyes was so kind, so loving; and yet you brought me to her—*you!* But I will not believe it of her. It is you have done it—you! you! you! It is you, and you are vile! You are unspeakable!"

Stunned by the onslaught, I staggered back as though from a blow. Of what

I was accused I had then no idea; but, doubtless, to the heated imagination of the girl my confusion and dismay presented the very picture of detected guilt. Of feelings I believe I had none—certainly none that can be described. Only one who has come with love in his heart to such a reception can conceive the numbness which seized me as I saw and heard.

Gradually the same appalling thought asserted itself—the girl was hysterical, if not actually demented. But with it, and towering higher and higher above it, came blind anger, born of grief and pride. My love might not be worth much; it was all that I had to offer, and it was not for Maria Bigontina or any one else to spurn it as an abomination. Needless to say, I did not stop to remember that of love I had as yet said absolutely nothing to her.

"And this is all you have to say to me—that I am vile!" When I spoke, at last, I was as bitter as she. "You are not particular about your words, Miss Bigontina."

"Go!" was all she answered. her outstretched arm and white hand pointing to the door in resolute command.

Too choked with rage to speak, I turned away. At the door I stopped and, with one last effort for self-command, faced her.

"Of what you mean I have no idea; and when you have come to your senses, Miss Bigontina, you will regret your behavior. But I can tell you this now: whatever you fancy me to have done, Mrs. Noyes has had no hand in it. You can stay here with safety—I shall not return to trouble you."

My words fell upon a girl turned to stone.

"Go!" she repeated, and, ordered like a whipped cur from my cousin's library, I walked down the stairs to Mrs. Noyes. She looked anxiously at me, but the thought of any discussion of the scene was more than I could bear. I reached my hat from the rack and jammed it on my head.

"Take care of her," I muttered. "I can do nothing." Then the white door closed upon me, and with wrath in my heart I strode down the steps into the world again.

Mechanically I turned toward my rooms, and mechanically I stopped for the second time that morning under the shadow of the great arch. It was there that a few minutes before I had admitted my love to myself. I had not told it to Maria; I never would. The dead weight of it all sank down upon me and crushed the flame of my anger.

What did it matter what she had said to me? I loved her, and I knew I always would

As I stood there, slowly rallying from the shock, the familiar sights began once more to convey their meaning to me. This was Washington Square; and over there, in the center of that row of buildings, was what I called home. It was all just as it had been, and yet there was a difference. Unconsciously I felt it. Dazed by its grief, my mind wandered afield to seek an explanation for the change.

The children had gone, and only a dilapidated horde of vagrants occupied the benches which had been lined with mothers. It was dinner-time. In an hour they, or a fresh lot, would be back, and the square would be alive once more. The world was going on as though I had never seen Maria Bigontina, and I must go on with it.

Dinner-time! That meant luncheon for me. I had some sort of engagement for luncheon, I remembered. It was with Rocca, and at one-thirty. If I walked up, I could do it comfortably, and I needed the walk.

I swung about and headed up the avenue, the mere physical exercise of walking toward some definite goal an infinite relief. But, as I walked, there was more than mere physical relief. A new hope was born in my mind. Marshfield had told me that Ghedina could help him in the Abyssinian business, and Rocca was the controlling genius of the Abyssinian business.

Therefore, Rocca might know something about Ghedina.

Ghedina certainly knew Cagno, and Cagno had started the whole thing with his men in Rosa's humble dwelling. Also, there was that black book on my desk, about which Ghedina had raised such a hubbub last night. The key to the whole mystery, to Maria's wild scorn,

must be within my grasp. Could it not be in the luncheon in which I sought relief from present pain?

CHAPTER XV.

I Am Too Highly Honored.

IT was an excellent luncheon, so excellent that Marshfield commented on it as we sat over its relics in the dining-room of Rocca's apartment on Thirtieth Street. Throughout the meal I had been vaguely conscious of good cooking, of a noiseless individual in black who had made of waiting a high art, of unobtrusive luxury all about me, of a steady flow of conversation from my almost unknown host which David appeared to find entertaining.

All this I had perceived, but I had perceived it through the haze of my own thoughts. My mind was not on Rocca nor his talk of Abyssinia, nor the elegance of his dwelling; it was traveling in endless, fruitless repetition from my own love to the inexplicable behavior of Maria Bigontina and back again. Always in the center of my thoughts was the slight figure of the girl, tense with white rage, as she drove me from the house to which I had taken her; but, around it, like the frame of a picture, were the shifting memories of all that I had seen and heard since Rosa had rushed screaming into the square.

I could make nothing of them. Dazed and appalled by the morning's shock, the clues I had fancied that I held slipped from me as I strove to grasp them. And all the time the black-clothed man waited noiselessly upon us, David and Rocca talked and laughed, and mechanically I laughed and talked with them.

"A very delightful luncheon, Mr. Rocca," Marshfield pushed back his chair and lighted the cigar the servant handed him. "I do not wonder you prefer this to a hotel."

"Ah, I do not care for hotels, and some friends of mine were kind enough to secure this for me." Rocca looked about him carelessly. "It does for a time, and it is convenient—very."

A singular emphasis on the last word made me look up quickly. I saw nothing but our suave Italian host smoking placidly, and I plunged back into the dreary routine of my thoughts, the voice of my friend reaching me as through from a great distance.

"So convenient that I wonder you have the energy to think of the wilds of Africa."

"Great Heavens, I am not going to Abyssinia!" At the thought Rocca burst into a louder laugh than I had ever heard from him. "I leave that to younger blood, to you and Mr. Paget. I am too old for adventure and the fare of the mountains."

"It might do you good." David's eye dwelt with disrespectful frankness upon the surplus flesh of our host. "Anyhow, Stephen and I are quite young enough, aren't we, Steve?"

"Eh—certainly—quite—of course."

I awoke from my abstraction to wonder what the dickens possessed the whole world to talk of nothing but Abyssinia, and why David should be bent on dragging me there. I wouldn't stir from New York until Maria was safe—that was flat. Afterward—Abyssinia or China or the North Pole—it did not matter.

"You have quite converted me into an enthusiast, though upon my word"—Marshfield set down his coffee-cup and surveyed Rocca with cool appraisal—"upon my word I don't know how you have done it."

It was not a polite speech—in fact, I have always considered it distinctly rude. To my ears it conveyed clearly the impression that David regarded his host somewhat in the light of a confidence man and was not averse to proclaiming his opinion.

Rocca was fully as intelligent a man as I. What I perceived he must have also, had he chosen. But he did not choose, and in that instant my respect for the distinguished foreigner crumbled into nothingness.

"Truth works in mysterious ways," he laughed with no trace of resentment visible on his strong face, and the talk drifted into other channels.

Suddenly Rocca pulled out his watch. "If you really wanted to know how I can convince you, I would offer to show you specimens of ore, maps, and all that, but such things are really rather a bore. I should be delighted to show them, how-

ever. Ah, I forgot! You said you were engaged this afternoon and they are not here it would take time to bring you to them."

David rose from the table with a slight frown.

"Thank you for reminding me," he said. "I remember now that I am busy this afternoon, though I had forgotten the engagement as well as you."

I knew the man too well to miss the sarcasm in his voice. Moreover, David had said nothing to me of an engagement. He made no pretense of confiding all his affairs to any one, it is true, but had there been any reason for his hurrying away from that luncheon it was probable that he would have mentioned it when the invitation was first accepted.

I saw the frown on his face, heard the sarcasm in his voice, and I jumped to the conclusion that he felt that he was being asked to leave. Unlike Rocca, David Marshfield was never blind to rudeness.

As a matter of course I rose also. I wanted to be alone, to think and to plan. To my surprise Rocca checked me with his most affable smile.

"Sit down, Mr. Paget. I am sorry Mr. Marshfield has to leave us so abruptly, but I know that he is a busy man. You have emancipated yourself from business; surely you can spare a stranger an hour or two."

I sat down abruptly in the chair I had just vacated. Who told Rocca I had emancipated myself from business, and what did it matter to him if I had? This individual took a deal of interest in an unknown young man he had met only the day before. If another, in whom I took a deal of interest, had shared his sentiments, it would have been pleasanter.

"Well, Stephen, are you coming?" From the doorway David looked at me in obvious surprise as I remained seated at Rocca's table.

"I think I'll stay a little longer, since Mr. Rocca is kind enough to ask me."

There would be plenty of time to sit in my lonely apartments thinking. It occurred to me suddenly that if the Italian went out of his way to seek my society, he must have some reason besides the charm of my society. To me, at that moment, there was only one reason in the world, and that was Maria Bigontina. Therefore it must be on account of Maria Bigontina that Rocca asked me to stay

Naturally the processes of my bewildered mind were hidden from David. For a minute he appeared to hesitate as though he regretted his determination to depart. But Rocca stood ready to bid him farewell; there was no excuse, no reason for him to change his mind.

"As you please," he said. "I must be off. Good-by, Mr. Rocca. I shall see you again."

He shook hands with the Italian and then the servant ushered him ceremoniously down the stairs to the street. It was all as it should be, of course, polite, perhaps a little formal; but, disguise it as they might, master and man, between them, had managed to eject Marshfield as effectually as if they had kicked him out of the house. Possibly Rocca had his own way of resenting unwelcome remarks.

"It is a thousand pities your friend had to leave us." The Italian dropped back into his chair at the head of the table. "I should really have enjoyed showing him several things—the young men of to-day are so skeptical, Mr. Paget. In my time, Abyssinia"

Abyssinia again! The man had the wretched place on the brain. I wanted no more lectures from the encyclopedia.

"Possibly he is not greatly interested," I interrupted. "Why should he be?"

Rocca leaned over and filled his liqueur glass. "A little Benedictine, Mr. Paget? No? Why should he be interested in Abyssinia? You were present at the dinner last night. Do you not think most men are interested in great wealth."

"Apparently neither of the Marshfields is convinced that it means wealth," I returned.

At last the man seemed to be coming to his point. If he did, it might throw some light on Ghedina's connection with the affair and on Ghedina himself, and that would throw light on Maria and—I was back in the midst of my dreary circle before I knew it. Rocca's mild remark rescued me:

"I have been trying to convince them of that for some time. Ideas appear to frighten them."

"Well?" My tone was hardly cor-

dial. I did not care to hear this fellow criticize the Marshfields, and also I had discovered that the shorter one was with the great man the more confidential he became.

"Possibly you are more receptive."

The voice was silky in its smoothness. It flashed across me that I was about to be offered a bribe. He knew that I was a friend of David's, and somehow he had learned that I had "emancipated myself" from business, and, presumably, from an income at the same time. My influence might be worth paying for.

"What do you wish me to do?" I asked, running rapidly over in my mind all the dramatic tales of incorruptible virtue I had heard. One man had lighted a cigar with a hundred dollar bill—that story had always rather appealed to me. Unfortunately, my cigar was already burning nicely.

"I merely wish you to convince yourself that Abyssinia does mean wealth."

"And how am I to do that?"

"By driving with me to where I have stored my specimens and my maps. I do not keep them here—there is no proper safe. Will you come?"

Rocca rose and stood looking down at me with the confident smile of one who held earth's treasures in his hands.

"With pleasure. But where are we going?"

"To my warehouse down-town—in Barent Street, if you know where that is."

(To be continued.)

AN ENGINE FOR SHARP CURVES.

New Mallet Creation To Be Used in the Logging Camps of the Tennessee Mountains.

THE Baldwin Locomotive Works have recently completed for the Little River Railroad a Mallet articulated locomotive which is of special interest. It is the first engine of its wheel arrangement thus far constructed by the builders, says the *Railway and Engineering Review*, and has been designed to meet difficult operating conditions. This engine is in logging service in the Tennessee mountains, on a line having grades of two and a half per cent combined with uncompensated curves of 180 feet radius.

The sharpest curves have a radius of 160 feet, and the track is standard gage, with rails weighing 56 and 60 pounds per yard. The design of a locomotive suitable for handling trains of about 200 tons weight under such circumstances requires special treatment, and the problem was given careful consideration. The 2-4-4-2 wheel arrangement was finally selected, as offering a minimum rigid wheel base, ample flexibility, and a good weight distribution, with a sufficient amount on the driving wheels to give the necessary adhesion. The tractive force exerted by this engine is 27,430 pounds.

In its constructive details this locomotive is similar to heavier engines of the articulated type previously built at these works. The leading truck is center bearing and is equalized with the front group of driving wheels, while the trailing truck, which is side bearing, is equalized with the rear group. The rear frames are of cast steel, each frame being in one piece.

The front frames are also of cast steel, with double wrought iron front rails. The articulated connection is effected by two radius bars, and the weight on the two groups of wheels are equalized by contact between the frames, no equalizing bolts being used in this design.

The high pressure cylinders are cast separate from their saddle and from each other, while the low pressure cylinder castings are bolted together on the center line of the engine. Walschaert's valve gear is applied, the design being in accordance with the latest practise of the builders.

The front and back reverse shafts are connected by a single reach rod placed on the center line of the engine, and having a suitable joint at midlength. This joint is carried by a cross-head, which is guided between the inner walls of the high-pressure cylinder saddle. The steam distribution is controlled by balanced slide valves.

Sand is delivered to the rear group of driving wheels by a box placed over the boiler, and to the front group by two boxes, placed well down, between the low-pressure cylinders.

The tender carries 4,000 gallons of water and 7 tons of coal. It has a steel frame.

ON THE EDITORIAL CARPET.

Come, Boys, Gather Around Us Back Here in the Hut, and Listen to the Stove-piping.

THE DECEMBER RUN.

WHEN we gave the Courage Club series the highball some months ago, the idea was an experiment with us. It proved a very successful one, and we feel sure that many of our readers regretted the end of the series last month. But, if you notice, we have always balm for the regrets of our friends, and when you read the opening instalments of our new serial, "The Daughter of the Idol," in this number, you will agree with us that we are in no danger of letting the gage drop below its normal position, which is close to the shadow of the blow-off point.

For a real steamer, with classy lines and a high draw-bar pull, "The Daughter of the Idol" is about as fine a bit of motive power as we have turned out of this shop, and her designer, Mr. John Mack Stone, has reason to be proud of her.

In the October number we promised you "The Trail of the Missed Extra," by J. N. Shreve, for this month Well, we found we had to cut that high-class car out and leave her on a siding, but she has been picked up, and is coming right along for the December number. When you read that story, you'll be glad we saved it for you, even if we did it by accident.

"The Ten-Thirty Call" is a railroad story dealing with the original methods of a very bright call-boy. We know that grown-up railroad men give another name to the precocity of the call-boy, but as we read the story, perched in the snug comfort of our office-chair, we had no fear of the impishness of that tormentor of roadmen, and we laughed. So will you laugh when you read it, even if you have just kicked the call-boy down-stairs for suggesting that, owing to the shortness of your wheel-base, he has to wake you half an hour before everybody else.

"Mabel on a Mountain" is another railroad story, dealing delightfully with the love-affairs of two operators Mabel is one of them. The name of the other is not Mabel, naturally, but that does not prevent them from owning one name in common, anyhow, before the story gets through with them.

Another delightful feature of the December number is a little story by Clara Morris, the famous actress, called "Christmas on the Rail." Miss Morris has a large place in a large heart for railroad men, and you will like her sketch.

In the matter of special articles, we shall again be "Riding the Rail from Coast to Coast" with Mr. Willets, who has by now taken us to California, the Golden State. J. E. Smith is still "Observing" in the capacity of a Country Station-Agent, and his "Observations" are even more fruitful of keen, wise humor than ever. May he live long. He is a real railroad man, and we are proud of him.

A new feature to be inaugurated in the December number is a series of letters between an old railroad man and his son, just starting out in the business, by Herman Da Costa. Mr. Da Costa needs no introduction to our readers, many of whom will remember his delicious bits of wit and humor in the earlier numbers of the magazine. This time he is more serious, but he is just as pointed, and as a railroad man writing about railroad matters we have no fear for his reputation.

The great trouble in writing this editorial paragraph is the conflicting emotions of the editor. We must tell you something about the running schedule, but we haven't got room to tell you all, and when we look over our fine equipment and consider that we have to make a choice and show a seeming favoritism where everything is so good, we are disturbed.

Thus we are reduced to the expedient of mentioning them as they come, and while the train is solid-vestibuled throughout, we can only mention the names of a few of the leading cars. The other cars are just as good, however, and if you don't get aboard you'll be sorry, for never in the history of railroading was such a fine ride and such

an excellent table d'hôte offered for the inclusive price of ten cents.

First call for dinner in the diner!

SONGS OF THE RAIL.

WE have many requests for songs this month, and if any reader can oblige with one or more of the following railroad ditties we shall be much obliged:

C. H. P., Galiton, Pennsylvania, asks if anybody is familiar with a song entitled "Jim Blake, or the Midnight Express," the first verse of which begins:

Jim Blake is an engine-driver;
He runs on the midnight express.

Another reader, Mr. E. F. McKenzie, asks if we can obtain the words of the song entitled "Poor Tramps," the chorus of which goes something like this:

It was just the other day, on the N. P. Railway,
A poor tramp, all tattered and torn,
Saw an empty box car standing still on the track,
So he went in and closed the door.
But he had not gone far in that empty box car
When a brakeman came round with a lamp;
He was thrown from the train and was killed by the mail,
Because he was only a tramp.

Mr. W. M. Kensill wishes to know where he can get an old railroad song by the name of "Mike O'Dinner Was a Good Engineer." It runs:

Mike O'Dinner was a good engineer,
He said to the fireman, "Don't you have any fear,
All I want is lots of water and coal;
And I'll put my head out of the window,
And watch the drivers roll."

Another song desired is one written on the "Chatsworth Wreck" about twenty years ago. It begins:

With hand upon the lever,
And eye along the track,
The engineer is watching,
While the shades of night grow black.

Mr. T. B. Foreman, of Metz, Missouri, asks if we have run across a song beginning:

He climbs on his engine and looks about;
Two short whistles, and the drag pulls out!

Can any reader oblige?

If "A Reader," of Chicago, Illinois will refer to THE RAILROAD MAN'S MAGAZINE for November, 1908, he will find that the poem he asks for, "Swifty Joe," by J. E. Hungerford, originated in our columns.

Expressing a hope that we will not be offended, Mr. A. J. Ahern, of Baltimore, sends us another verse for the song, "The Rock Candy Mountains," published in the August number. So far from being offended, we are very much obliged to Mr. Ahern for his interest. Here is the verse:

The Punk rolled up his big blue eyes and said to his Jocko: "Sandy,
I've been hiking all day long, where is that gol darn candy?
I'll hike no more, for my feet are sore. If we ever reach that fountain
I'll be a 'home-guard,' with a lemonade card, at the Big Rock Candy Mountain."

A HASTY FRIEND.

GENUINE objections are as welcome in this office as is genuine praise, and much of the popularity we enjoy has been gained by our readiness to take hints from our readers. The people we are making this magazine for are the people who buy it, and we like to make it as much in line with their wishes as is practicable.

We must admit that our friends have been generous in taking advantage of this privilege of readers, and the letters of criticism we have received have usually been thoughtful and valuable.

We have just received a letter from a gentleman signing with the initials H. E. R., to which we fear we must hesitate to apply these adjectives. We fear the gentleman is hasty; in fact, from certain slight misstatements, we are sure of it.

We feel sure that he paused for a moment and laid aside matters of pressing official importance to take up his pen and hurriedly give us much-needed advice. His first point of attack is the article on the air-brake, by C. F. Carter, in the September number.

Let us be frank! We have tried innumerable times to catch Mr. Carter napping, so that we might have the editorial satisfaction of pointing out to him how little he knew, compared with ourselves, and—we have never succeeded. We have come hopefully upon promising points, and have quoted our authorities with the care-free indifference of those who know these things because they cannot help it, only to find that Mr. Carter had the drop on us at some unguarded spot.

It has been like trying to pull clinkers

out of an oil-burner, and, frankly, we would give a year's subscription for ninety nine cents and a postage stamp to anybody who would show us how it could be done.

At first, when we saw H. E. R.'s letter, we were hopeful, but by the time we had finished it our hopes had fallen, for we found that the sum of it was a suggestion that Mr. Carter get a copy of the Westinghouse Air brake Company's instruction-book and copy it *verbatim*.

Now, this is biting sarcasm, but it really doesn't prove anything. We refrain from publishing Mr. Carter's reply, because we are determined to get even with him some way.

Having thus carefully shown that the air-brake doesn't work as Mr. Carter says it does, our friend, H. E. R., transfers his attention to the editor of BY THE LIGHT OF THE LANTERN department, and the things he does to him are awful. The insignificant fact that the instance he quotes does not occur in BY THE LIGHT OF THE LANTERN department at all, but in the Editorial Carpet, does not disturb him.

He declares that the man who attempts to answer the questions in this department must have lived close to a railroad at some time in his life, and imagined that he had absorbed the points of practical railroading. He further suggests and trusts that we will take it in the spirit it is intended—that we "get some one to write in your mechanical department who is capable and up-to-date," and further volunteers that "there are plenty of able men whom you can get, but you will have to pay them, as men of known ability come high; but as it is at present your mechanical department and BY THE LIGHT OF THE LANTERN is indeed laughable."

The idea that the editor of BY THE LIGHT OF THE LANTERN department once lived close to a railroad appeals to us. We imagine that he must have, for convenience sake, for, "at one time in his life," not very long ago, he was master mechanic at the largest station in the world. Perhaps he lives close to a railroad even yet, for we understand that he is a more than ordinarily important figure in the mechanical department of one of the best known railroads in the country.

As H. E. R. is preparing to abandon us, he further informs us that, "as it is, both departments are a travesty on practical railroading," and adds—more, we feel, in sorrow than in anger: "Now, look at this matter seriously, and either give the proper interpretation of a rule and the practical operation of a piece of machinery, or else cut out the department; as I buy the magazine, not for any information I can get from these departments, but for the humor that they contain, as some of the explanations are ridiculous in the extreme."

Friend, not for all the world would our ruthless hands deprive you of that humor which we feel you appreciate so keenly, and to which you have added so generously. We have honestly enjoyed your letter—and we trust you will take this in the spirit it is intended—and we have been so moved by it that we have almost decided to live near a railroad ourselves.

TRAIN NEWS SERVICE.

W. H. C., of Winnipeg, calls our attention to the fact that the news service recently installed by the Great Northern, and mentioned in a recent number of the magazine as a step in the progress of railroading, is not by any means an innovation. He tells us that the Canadian Pacific has had such a service on its transcontinental trains for a number of years.

We did not mean that this was an innovation in railroading, but that the spread of such a custom marked a step forward in rendering railroad travel as a whole more luxurious and convenient.

CAN YOU GIVE US A VERSE, BOYS?

G. M. BURNHAM, of Miles City, Montana, one of our readers, has tried to write a song. He did pretty well through the first verse and the chorus, but then he found that the Muse had forsaken him, and his lay, written to the tune of "Alice, Where Art Thou Going?" halted, as it were, for lack of a cylinder, and declined to go any further.

Mr. Burnham therefore appeals to his fellow readers who may happen to have a poetic turn, to get the other side in working order, so that the song may steam down the line of fame with its tuneful whistle playing variations of the well-known air.

Here is the cripple, in good shape except for that one cylinder. Who's got the tools?

We are only N. P. brakemen, looking for the dough,
And when we leave old Livingston we do not go so slow.
We'll soon be down in Billings, in a very, very short time;
We'll take our engine to the house, and prance right down the line.
We'll play the beanery and vaudevilles, you know;

We are not multimillionaires, but we have
a little dough.
But when the caller's ready, he will holler
"Go!"
We'll grab a lantern and a club and start to
hunt the bo

CHORUS.

Hobo, where are you going?
What's that I hear you say?
You are bound for the coast;
Does this train go that way?
You can ride if you have the chink—
Well, that you surely know;
So get in a box car, climb on a flat,
Or jump on the pilot and hang on to your
hat!
Climb on, the whistle's blowing!

ACCIDENTS BADLY REPORTED.

A. K. SANDERSON, of Buffalo, New York, has a grievance, but as it is not against us, we sympathize with him and congratulate ourselves. Not that the latter is necessary, for Mr. Sanderson gives us all the congratulation that even the greediest of editors could desire.

In the following extremely interesting and well-written letter, Mr. Sanderson enclosed a newspaper account of an accident which, indeed, must have been of so weird a nature that nobody but an experienced newspaper reporter would have had the courage to rush it into print:

No doubt many will agree with me that newspaper accounts of railroad accidents have always been a source of annoyance to railroad men. In every case where I have known of the cause and the result of such accidents, the newspaper report was not only far from correct, but would make one wonder how they could obtain a version so garbled.

Accounts of which I had no knowledge, other than from the newspapers, could be easily sized up. The one enclosed is a fair sample, and shows how brave and thoughtful the engineer was to shut off steam as soon as the boiler exploded.

One day during the last Presidential campaign papers came out with the following scare-head:

"Accident to Taft's Train Narrowly Averted by Prompt Action of Tower Man!"

The account, condensed, said:

"Train was running sixty miles an hour. Just as tower was reached a cylinder-head blew out on engine. Tower-man saw it and immediately put semaphore against train and stopped it."

Of course, the enginemen wouldn't notice a little thing like a cylinder-head out, so no doubt the action of the tower-man—which was commendable—saved the lives of all on board

The railroad stories in papers and magazines, with a very few exceptions, are simply amusing. The brave acts and hairbreadth escapes of the entire crew, told by a writer who wouldn't know whether he was going east on the main line or being backed into the yard track, are, to say the least, laughable.

The enclosed lines are sent to you as a poetical (?) curiosity:

The "poetical curiosity" follows, and what it lacks in quality of verse we are sure it makes up in good feeling:

RAILROAD LITERATURE—PAST AND PRESENT.

THE former attempts to cover this field
Have now been made to gracefully yield;
Erstwhile competitors lower their shield.

RAILROAD stories by the writers of old
Are the ones that often "knocked you cold."
Ignore them now, for it will not pay
Longer to read their exciting lay.
Romancers they were, in more ways than one,
Or would have quit before story was done,
And not try to make us believe so soon
Dame Nature used cheese to make the moon.

MAN'S wishes now at the present time
Are for stories truthful of the rail
Nor cares he much if from other clime
Since they follow well the beaten trail.

MAGAZINE writers in your popular pages
Are such as we have needed for ages.
Greatly would we like to mention them all,
And praise bestow on the great and small.
Zones are covered by this formidable array,
In a manner leaving nothing for critics to say.
Now, subscribe at once—send a retainer—
Ere the year's half gone you'll be the gainer.

CHAT WITH A LAY READER.

HERE is a typical letter from Mortonville, California, from a reader who is not a railroad man. Perhaps some one can give us more specific information about the roads Mr. Tongue mentions, or can tell us of some other instances:

In reading a very interesting article in the September issue of your magazine, entitled "Some Tom Thumb Railroads," I happened to recall two such roads you evidently overlooked. One is four miles long, and is "down grade all the way" from Exeter, Missouri, to Cassville, Missouri.

Exeter is below Springfield, on the Frisco Railroad. I do not remember the name of this little railroad.

The other road probably belongs to the

Pennsylvania, and runs from Brandywine, Maryland, to Mechanicsville, Maryland, being another "one-man" railroad. I don't know the distance or the name, as I haven't traveled it for fifteen years, and then for only one trip.

If your Mr. Willets goes through the "Sunny South," he could probably get some interesting pictures of antiquated locomotives around many of the sawmills.

"Riding the Rail From Coast to Coast" contains information about a great stretch of salt-fields on the Western Pacific, in Utah. Your readers might be interested to hear of similar salt deposits for quite a stretch along the "Alfalfa Route"—Denver, Enid and Gulf—now a part of the Santa Fe, running between Enid, Oklahoma, and Kiowa, Kansas.

Your magazine is certainly a winner. I don't see any room for complaint, either. Although I am not a railroad man, still I find much interesting and instructive reading. Continued stories are certainly fine.

Respectfully,

THOMAS G. TONGUE.

"OUR ORPHAN BOYS."

REPLYING to an inquiry in this department, Mr. E. McLoughlin, of St. Louis, Missouri, informs us that the song, "Our Orphan Boys," is published by the Williams Brothers, Mapelwood P. O. Station, St. Louis, Missouri. We are obliged to Mr. McLoughlin for the information.

FARES AT PISTOL-POINT.

PAUL WEBER, who has done considerable railroading in the Central America countries, adds an interesting chapter to the queer methods used in a section where railroading must be regarded as a joke. Mr. Weber is now located at Walnut Lake, Arkansas:

EDITOR THE RAILROAD MAN'S MAGAZINE:

If you will allow me a little space in your valuable magazine, I will tell you of a little experience I had while special traveling auditor for the Salvador Railroad Company, Limited, of Salvador, Central America, the head office of which is in London.

I was under the auditor-general, Mr. Gibson, and had orders to check up the conductors and see that *everybody* had tickets or passes. It was a new order of things, usually everybody could ride that was acquainted with the conductor, and if he showed his pass once he could ride the rest of the year without ever carrying it again. Passes would be exchanged from hand to hand, and maybe twenty or more persons would ride on one pass at different times.

I found it very hard to get the aristocratic gentlemen of Salvador to get used to the new orders. One day in February, 1908, on our route from the little coast town, Acajutla, to the capital, a distance of sixty-six miles, we had with us in the first-class coach several very proud-looking gentlemen, accompanied by several officers in uniform. The conductor asked them for their passes, when one, who seemed to be the leader, said that he was Colonel Gomez, the military commander and governor of the province of Sonsonate; that he had his pass in the office, and did not intend to carry it or bother himself with it, and if we asked him for a pass again he would have us thrown off the train by his officers.

There were ten officers with him, and they carried long revolvers. It was advisable to let him ride, but I reported the matter to the auditor-general, who said if it happened again he would report it to the president. Of course, we knew that would do very little good, since every little one-horse colonel or general with about twenty men would start a revolution if they were corrected too severely by their superiors.

There are many generals, and to ask them for their tickets or passes was quite a strain on us, and we had to go at it very gently. We generally kept out of reach of them.

Life is very cheap there, and any drunken officer can shoot a man and will not be punished, because there is no high official who would dare to punish or correct him.

Every one who rides on the trains is asked by a policeman, who enters the cars, his name, where he is going, and where he came from. If he don't give the information he will have to go to the police station.

In the eastern part of Salvador another railroad was almost completed, but the people there refused to allow the road to be operated. They would wreck the trains continually, and the owners finally quit the road.

MORE ABOUT LATIN-AMERICA.

APROPOS of the constant advice we have given through the LIGHT OF THE LANTERN DEPARTMENT regarding work in South and Central America, we have received the following letter. We are more than glad to find that our magazine has an interest for such a varied class of readers, and the fact that men who travel are among the earnest readers of THE RAILROAD MAN'S MAGAZINE helps us in the belief that we are striking the right key-note.

Our correspondent says:

While not a railroad man myself, I am much interested in your magazine and in any matters relating to railroads, as I have spent fifteen years in the theatrical business on the road in this country, Canada, Mexico, and Central America. I notice that in al most every issue you have inquiries from

railroad men in different parts of the Union about employment in Latin-American countries.

I have put in some months down there in my business, and have ridden on the greater number of their lines; consequently I have had a good chance to get first-hand knowledge of conditions. Besides, I have gotten what information I could in conversation with white railroaders from all over who were employed there at the time.

From what I saw and could gather, I would say to any prospective candidate for railroad employment in Latin America, "Let it alone!"

Conditions may seem to a man to be bad where he is in this country, but I will guarantee that the worst railroad job in the United States is a paradise to the best they have to offer there. Conditions of life, employment, and, in fact, any and everything, are so much different there, that I feel safe in saying that not one out of a hundred would stay only long enough to get a stake to ride back to God's country with.

MISSING RELATIVES.

IT'S only when you become very useful to your friends that you have to make rules. Consequently we have to institute one or two slight restrictions, owing to the physical difficulty of keeping up with the calls upon our services.

We have from time to time published paragraphs requesting information about the missing relatives of our readers. These paragraphs have been useful to our friends and a pleasure to us, but unfortunately there are more missing relatives in the country than we can hope to cope with as a side issue, so we are compelled to draw up the following regulations:

Hereafter all letters asking for information about missing men must be accompanied by a letter from the company with whom the lost person was last employed. Also, a reasonable time must have elapsed since the person sought was last heard from or about.

It should be clearly understood by relatives or friends that the authorities of their own town or neighborhood, or of the neighborhood in which their friend was last heard of, can give them much quicker satisfaction than we can under ordinary circumstances; therefore, these should first be consulted. Any letter to this magazine should state exactly what means have been used for the discovery of the missing person, and when.

In the meantime we hand on a query for the whereabouts of R. W. Lilly, last heard from when working in or about Little Rock, Arkansas. Any information should be forwarded to his mother, Mrs. G. W. Lilly, Point of Rocks, Frederick County, Maryland.

We also have a request for information of the whereabouts of Ralph Kincaird, an operator, last heard of in Mantua, Ohio, four years ago. He was then on his way to Sharon, Pennsylvania.

REACHING THE POLES.

THE "Gossip of Railwaymen" department of the San Francisco *Call* is an entertaining column. What the jokes lack in vividness and point they usually make up in good-nature and railroad atmosphere, and, besides, have a truer sound than some of the ultra-smart things that ultra smart people who haven't got time to be railroaders are supposed to say.

Also, once in a while they drop us something that is worth repeating. For example, the following:

"WANTED—Ten thousand poles. Purchasing department Blue Ridge Line. Highest price for right kind.

"And the result was this:

"'Dear Mr. Purchasing Department—I have the right kind of Poles. There are ten thousand right in New York State, and thereabouts, who are willing to go West, and will make the best kind of immigrant for a young and growing country. They are all familied men, and each man has one wife and from six to one dozen children. If they are not all his children they are his sister's or his brother's, which, of course, will make no difference to the railroad company.

"'They are all good workmen, and some of them would buy land and farm. They all like cows and other kinds of animals, and never get into fights with railroadmen.

"'Some of them can handle pigs and hogs, and know all about track-building. I think that if you employed them you would find that the Poles you are looking for are right there every time. Shall I send them on to you at once, and we can talk over the price I get for sending them if the first batch suits?'

"'And what do you think of that?' asked the purchasing agent, after he had spelled the letter through. 'And so they can get along with railroadmen because they can handle cows and hogs!

"'Look here, boy, take this letter over to the passenger department. It evidently has been addressed wrongly.'"

A LIVING FROM POULTRY

$1,500.00 FROM 60 HENS IN TEN MONTHS ON A CITY LOT 40 FEET SQUARE.

TO the average poultryman that would seem impossible and when we tell you that we have actually done a $1,500 poultry business with 60 hens on a corner in the city garden 40 feet wide by 40 feet long we are simply stating facts. It would not be possible to get such returns by any one of the systems of poultry keeping recommended and practiced by the American people, still it is an easy matter when the new

PHILO SYSTEM

is adopted.

THE PHILO SYSTEM IS UNLIKE ALL OTHER WAYS OF KEEPING POULTRY,

and in many respects just the reverse, accomplishing things in poultry work that have always been considered impossible, and getting unheard-of results that are hard to believe without seeing.

THE NEW SYSTEM COVERS ALL BRANCHES OF THE WORK NECESSARY FOR SUCCESS

from selecting the breeders to marketing the product. It tells how to get eggs that will hatch, how to hatch nearly every egg and how to raise nearly all the chicks hatched. It gives complete plans in detail how to make everything necessary to run the business and at less than half the cost required to handle the poultry business in any other manner

TWO POUND BROILERS IN EIGHT WEEKS

are raised in a space of less than a square foot to the broiler without any loss, and the broilers are of the very best quality, bringing here three cents per pound above the highest market price

OUR SIX-MONTHS-OLD PULLETS ARE LAYING AT THE RATE OF 24 EGGS EACH PER MONTH

in a space of two square feet for each bird. No green cut bone or any description is fed, and the food used is inexpensive as compared with food others are using

Our new book, the PHILO SYSTEM OF POULTRY KEEPING, gives full particulars regarding these wonderful discoveries, with simple, easy-to-understand directions that are right to the point, and 15 pages of illustrations showing all branches of the work from start to finish

DON'T LET THE CHICKS DIE IN THE SHELL.

One of our secrets of success is to save all the chickens that are fully developed at hatching time, whether they can crack the shell or not. It is a simple trick and believed to be the secret of the ancient Egyptians and Chinese which enabled them to sell the chicks at 10 cents a dozen.

CHICKEN FEED AT 15 CENTS A BUSHEL.

Our book tells how to make the best green food with but little trouble and have a good supply, any day in the year, winter or summer. It is just as impossible to get a large egg yield without green food as it is to keep a cow without hay or fodder.

OUR NEW BROODER SAVES 2 CENTS ON EACH CHICKEN.

No lamp required. No danger of chilling, overheating or burning up the chickens as with brooders using lamps or any kind of fire. They also keep all the lice off the chickens automatically or kill any that may be on them when placed in the brooder. Our book gives full plans and the right to make and use them. One can easily be made in an hour at a cost of 25 TO 50 CENTS.

TESTIMONIALS.

Belefontaine, Ohio, June 7, 1909.
Mr. E. R. Philo, Elmira, N. Y.

Dear Sir—I just want to tell you of the success I have had with the Philo System. In January, 1909, I purchased one of your Philo Systems and I commenced to hatch chickens. On the third day of February, 1909, I succeeded in hatching ten chicks. I put them in one of your fireless brooders and we had zero weather. We succeeded in bringing through nine, one got killed by accident. On June 1, one of the pullets laid her first egg, and the most remarkable thing is she has laid every day since up to the present time. Yours truly, R. S. LaRue.

205 S. Clinton St., Baltimore, Md., May 28, 1909.
E. R. Philo, Publisher, Elmira, N. Y.

Dear Sir:—I have embarked in the poultry business on a small scale (Philo System) and am having the best of success so far, sixty-eight per cent of eggs hatched by hens, all chicks alive and healthy at this writing; they are now three weeks old. Mr. Philo is a public benefactor, and I don't believe his System can be improved upon, and so I am now looking for more yard room, having but 15x30 where I am now. Yours truly, C. H. Leach.

THREE POUND ROASTERS TEN WEEKS OLD

South Britain, Conn., April 14, 1909.
Mr. E. R. Philo, Elmira, N. Y.

Dear Sir:—I have followed your system as close as I could; the result is a complete success. If there can be any improvement on nature, your brooder is it. The first experience I had with your System was last December. I hatched 17 chicks under two hens, put them as soon as hatched in one of your brooders out of doors and at the age of three months I sold them at 35c a pound. They then averaged 2 1-2 lbs. each, and the man I sold them to said they were the finest he ever saw, and he wants all I can spare this season.

Yours truly A. E. Nelson.

Osakis, Minn., June 7, 1909.
Mr. E. R. Philo, Elmira, N. Y.

Dear Sir.—You certainly have the greatest system the world has ever known. I have had experience with poultry, but I know you have the system that brings the real profits. Yours

Jesse Underwood.

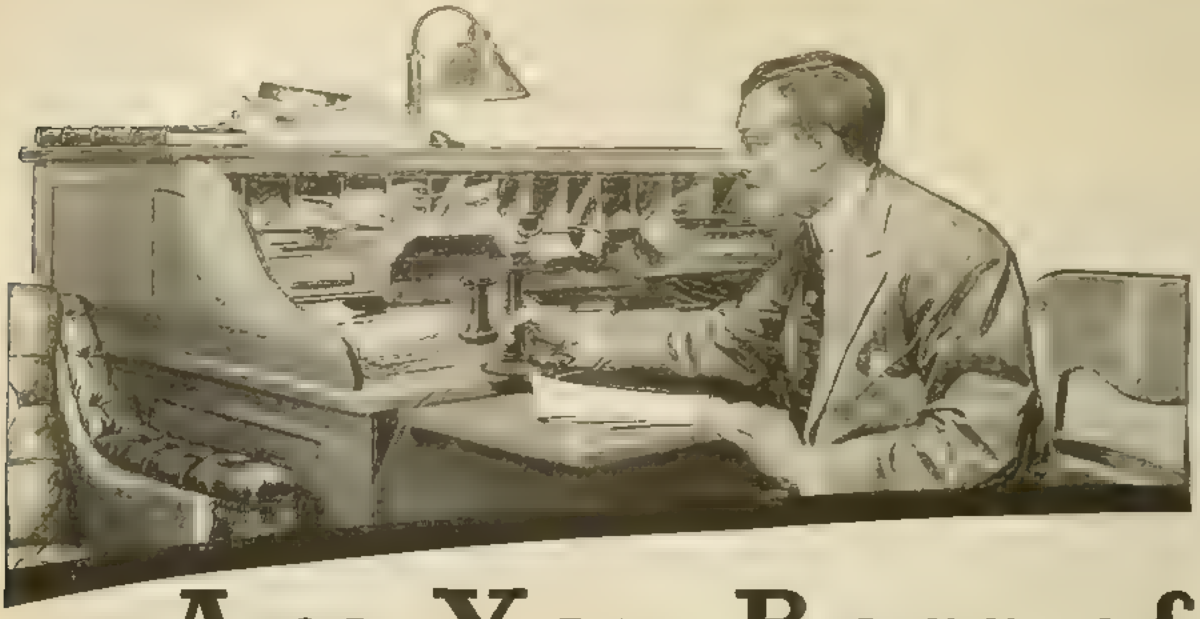
Brockport, N. Y., Sept. 13, 1908.
Mr. E. R. Philo, Elmira, N. Y.

Dear Sir—I have had perfect success brooding chickens your way. I think your method will raise stronger, healthier chicks than the old way of using lamps and besides it saves so much work and risk.

Yours respectfully,
M. S. Gooding.

Send $1.00 direct to the publisher and a copy of the latest revised edition of the book will be sent you by return mail.

E. R. PHILO, PUBLISHER, 282 THIRD ST., ELMIRA, N. Y.



Are You Boss of

In other words, is some one else paid for assuming the responsibility for your work? The ***trained*** man is the responsible man. The responsible man is the well-paid man, while the ***untrained*** man, the chap who does only the ***detail*** part of the work at another's bidding, is paid just so much for his labor, and no more.

If ***you*** are only a ***detail*** man, the International Correspondence Schools can fit you for positions higher up. If you are earning only a small wage the I. C. S. can ***raise your salary.*** Whether you live near or far away the I. C. S. will ***go to you*** — in your spare time — and train you for your ***chosen occupation*** without encroaching on your working time.

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J. L. BROOKS,
412 Third St., Roanoke, Va.

My I. C. S. Course has been of great value to me in many ways. When I enrolled in the Schools I was a machinist. My present position is Foreman of the Small Tools Department of the Barry Mfg. Co. and my salary has been almost doubled since enrolling. I would recommend your institution to any man who is sincere in his desire to get ahead.

FRANK P. HEBARD,
616 E. Fifth St., Muscatine, Ia.

I was employed as a cutter in a factory, am now with an electrical contractor, and through the knowledge gained from my Course, expect to get six times the amount of money that I received in the factory.

A. W. SPARKS,
25 Morrell St., Long Branch, N. J.

When I enrolled for my Course some time ago, I was employed as a helper in the erecting room. I am now Head Draftsman for The Buckeye Traction Ditcher Company of Findlay, and my salary has been doubled since I enrolled. My previous education was somewhat limited and I feel that I owe what advancement I have gained entirely to your schools.

L. A. KRUPP,
231½ N. Main St., Findlay, O.

I was a laborer on the railroad when I enrolled for the Course in Surveying and Mapping in your Schools. Since that time I have been employed as Deputy County Surveyor and Assistant City Engineer, which latter position I hold at present. I found the instruction of the Surveying Course helpful and beneficial, and I am sure that I profited by taking it.

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Emporia, Kansas.

When I enlisted in your Schools, I had just left the farm and was working for 75 cents a day. I studied Engineering and in a little more than two years I was Chief Engineer of a large plant. However, I decided to make Electricity my chief study then. I am in the employ of the Mobile Electric Supply Co. now, and am getting as much as any man in the shop.

W. D. MAYBIN,
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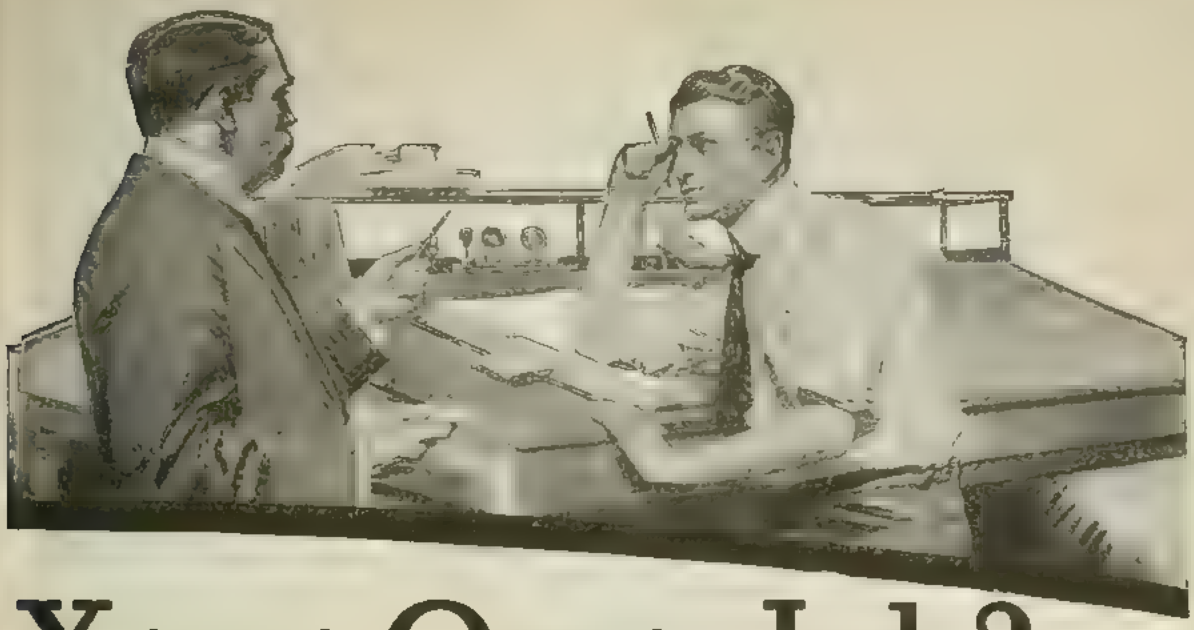

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Decorah, Iowa.

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A. F. ANNEN,
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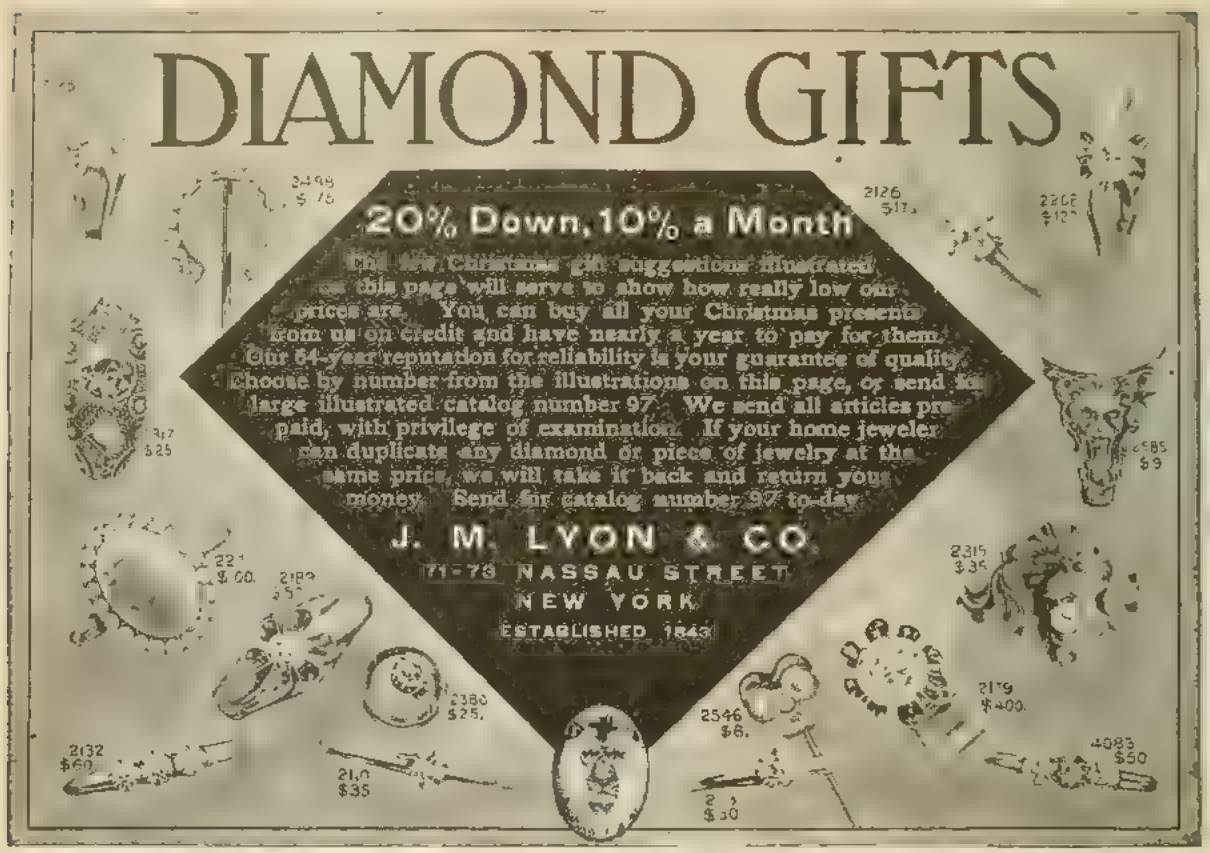

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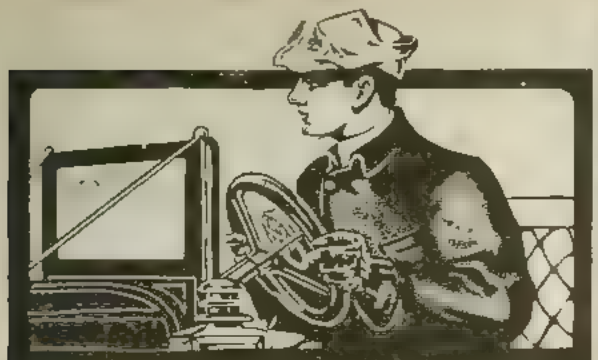

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[illegible] heater [illegible] Just [illegible] Time in the [illegible] heaters [illegible] [illegible] the [illegible] [illegible] [illegible] [illegible] water) for shaving, [illegible] [illegible]

[illegible] Each [illegible] [illegible] [illegible] Heater [illegible] [illegible] [illegible] [illegible]

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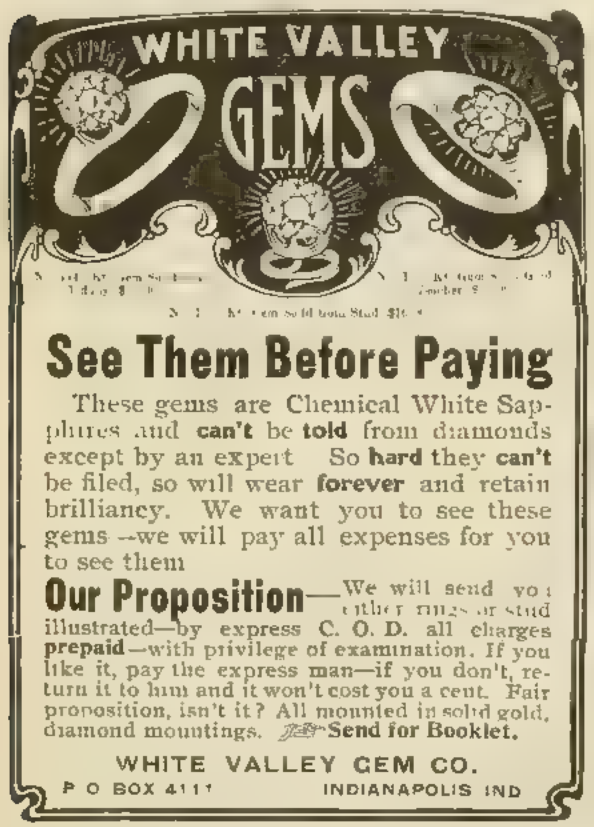

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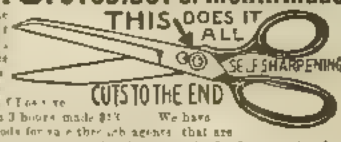

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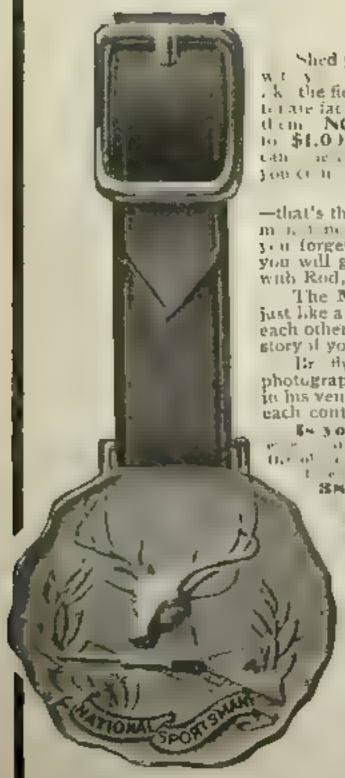

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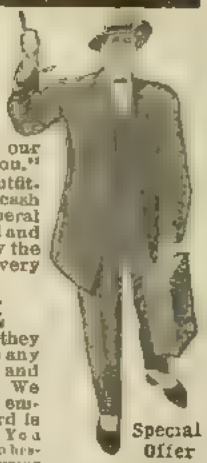

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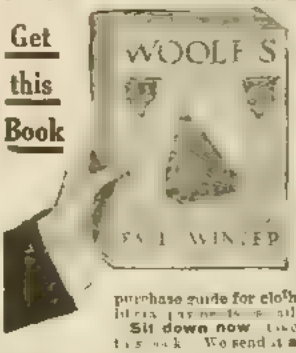

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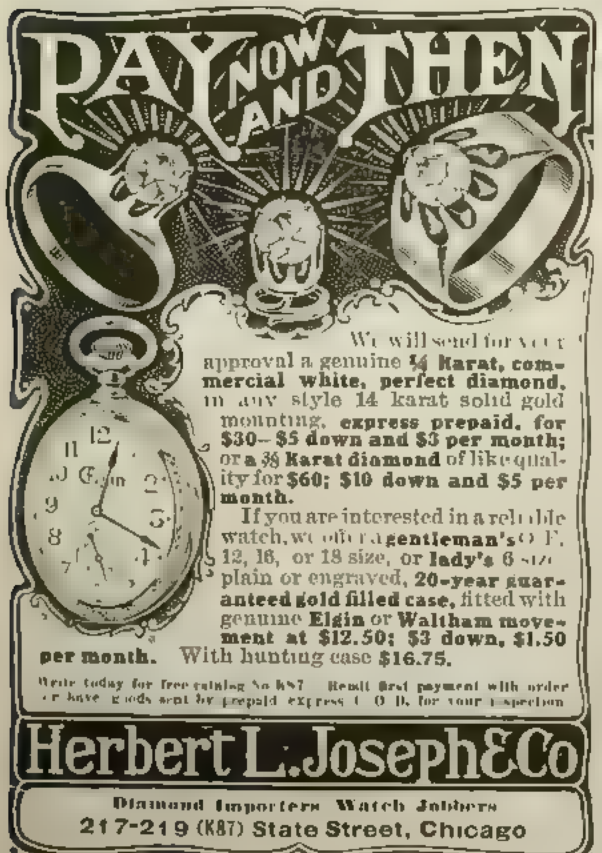

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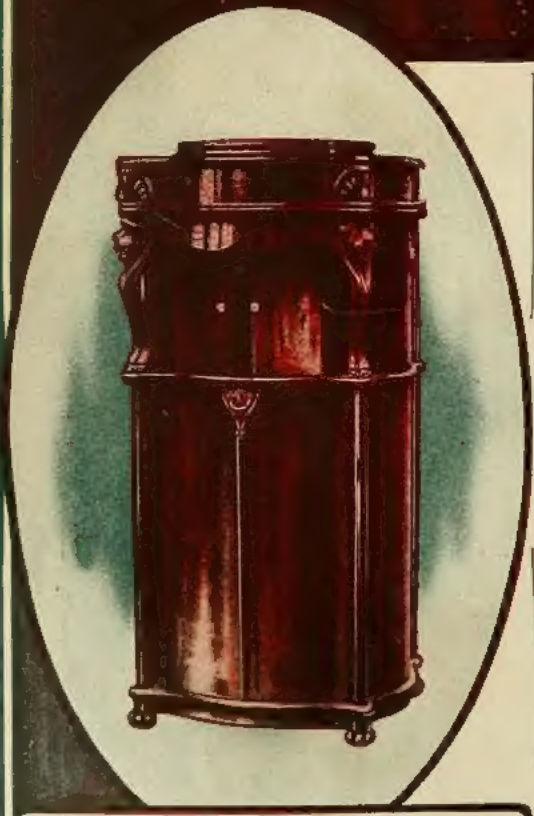

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